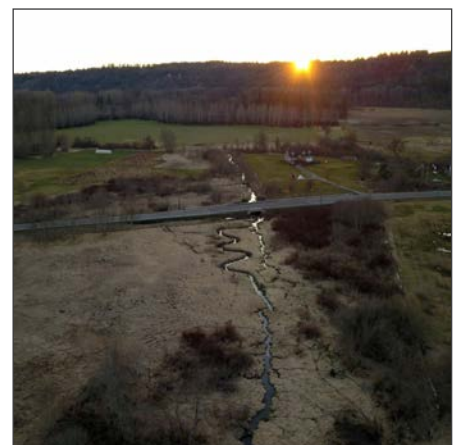

WSDOT FISH PASSAGE PERFORMANCE REPORT

JUNE 30, 2019





Environmental Services Office
Biology Branch
Stream Restoration Program

WSDOT FISH PASSAGE PERFORMANCE REPORT

June 30, 2019

Cover photos, clockwise from the upper left-hand corner: State Route (SR) 8 Middle Fork Wildcat Creek construction, old culvert and new bridge; coho at SR 900 Green Creek, constructed in 2017; SR 92 Little Pilchuck Creek constructed 2018; SR 203 Langlois Creek constructed 2018 from Jamie Glasgow, Wild Fish Conservancy; SR 9 Gribble Creek 2018 construction, removal of old culvert; SR 203 Langlois Creek constructed 2018.

This report is also available in a pdf format at <https://www.wsdot.wa.gov/Projects/FishPassage/>.

Additional data can be obtained by contacting Washington State Department of Transportation's Environmental Services Office, Kathy Prosser, e-mail kathy.prosser@wsdot.wa.gov, phone: (360) 705-7478

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Executive Summary

Since 1991, the Washington State Department of Transportation has worked with the Washington Department of Fish and Wildlife on a comprehensive program to eliminate fish passage barriers along the 7,052 miles of Washington State highways. Statewide there are 3,855 fish bearing highway crossings and 2,052 are fish passage barriers, including 2,027 culverts. 1,523 of these barriers block a significant amount of upstream habitat (> 200 meters).

As of June 3, 2019, WSDOT has corrected 66 injunction barrier culverts, opening 316 miles of blocked salmon and steelhead habitat. This represents 26% of the 1,233 miles blocked prior to correction.

To date, WSDOT has completed 345 fish passage barrier corrections, allowing access to approximately 1,155 miles of potential upstream habitat for fish. Sixteen fish passage projects were completed in 2018, correcting 15 barriers and opening up 104.73 miles of potential upstream habitat. One of these is a previous correction that had reverted to a barrier. Ten of the 15 barriers corrected are Federal Court Injunction barrier culverts.

Eight fish passage barrier corrections are planned for completion in 2019. Seven of the eight are injunction barrier corrections. Seven of the barrier corrections are stand-alone projects. These projects will open up approximately 20.04 miles of potential fish habitat.

Introduction

Background on WSDOT Fish Passage Program

The Washington State Department of Transportation (WSDOT) has long recognized the importance of minimizing the environmental impacts of Washington's transportation system. As a part of that commitment to the environment, in 1991 WSDOT created a dedicated program to correct barriers that restrict or completely block salmon and trout access to historic spawning and rearing habitat. In that same year, WSDOT partnered with the Washington Department of Fish



To date, WSDOT has completed 345 fish passage barrier corrections in Washington streams. As a result of this effort, access has been restored to an estimated 1,155 miles* (1,858 kilometers) of potential upstream habitat, assuming no other human-made obstacles exist in a given watershed where the project was completed.

*The amount of habitat that was once blocked by fish passage barriers was derived by habitat surveys or by using Geographic Information System (GIS) software for sites lacking detailed habitat surveys.

and Wildlife (WDFW) to assist with a comprehensive inventory and assessment of WSDOT owned water crossing structures associated with highway and rights of way. This was a major shift to the way fish passage barriers had been addressed in the past. Prior to 1991, fish passage barriers were addressed during highway construction and maintenance projects as required by permit. With this new program, WSDOT now had the ability to identify high priority barriers and correct them with dedicated fish passage funds while continuing to correct barriers during other transportation projects.

On March 29, 2013, the U.S. District Court issued a permanent injunction requiring the State of Washington to accelerate barrier correction on salmon and steelhead streams within the area subject to the injunction. This area is referred to herein as the "case area". The case area is that portion of the State of Washington west of the Cascade Mountains and north of the Willapa and Columbia River drainages (Figure 1).

This report summarizes WSDOT's progress in correcting fish passage barriers during the previous year and over the life of the program, both for dedicated fish passage projects and for those completed as a part of other transportation projects. It provides an update on planned corrections, as well as the results of post-project monitoring, fish use monitoring for completed projects, and fishway inspections. This report summarizes fish passage barriers corrected and uncorrected, statewide and within the case area.

The appendices include: all WSDOT fish passage barriers by region, a list of barrier culverts subject to the injunction, updates to the WSDOT injunction barrier list, the results of spawner surveys, and fishways requiring maintenance for fish passage.

Figure 1. WSDOT fish passage barriers

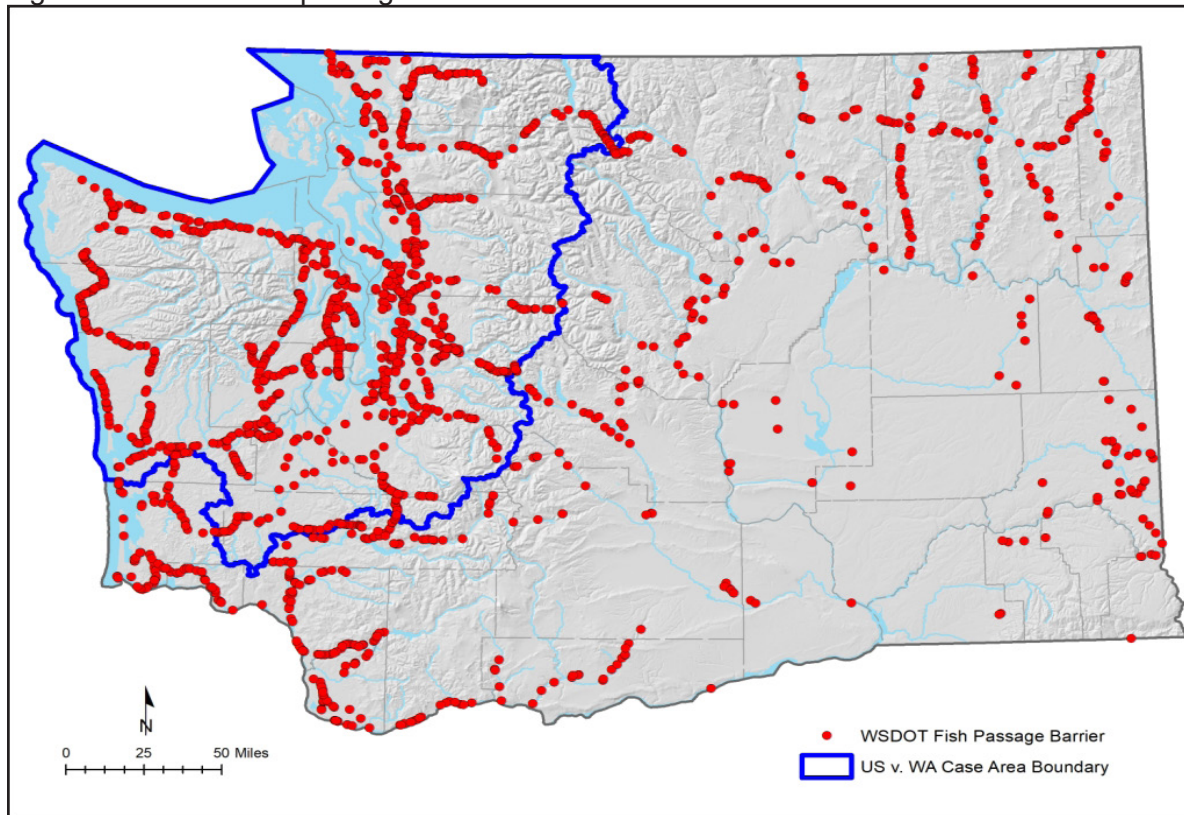
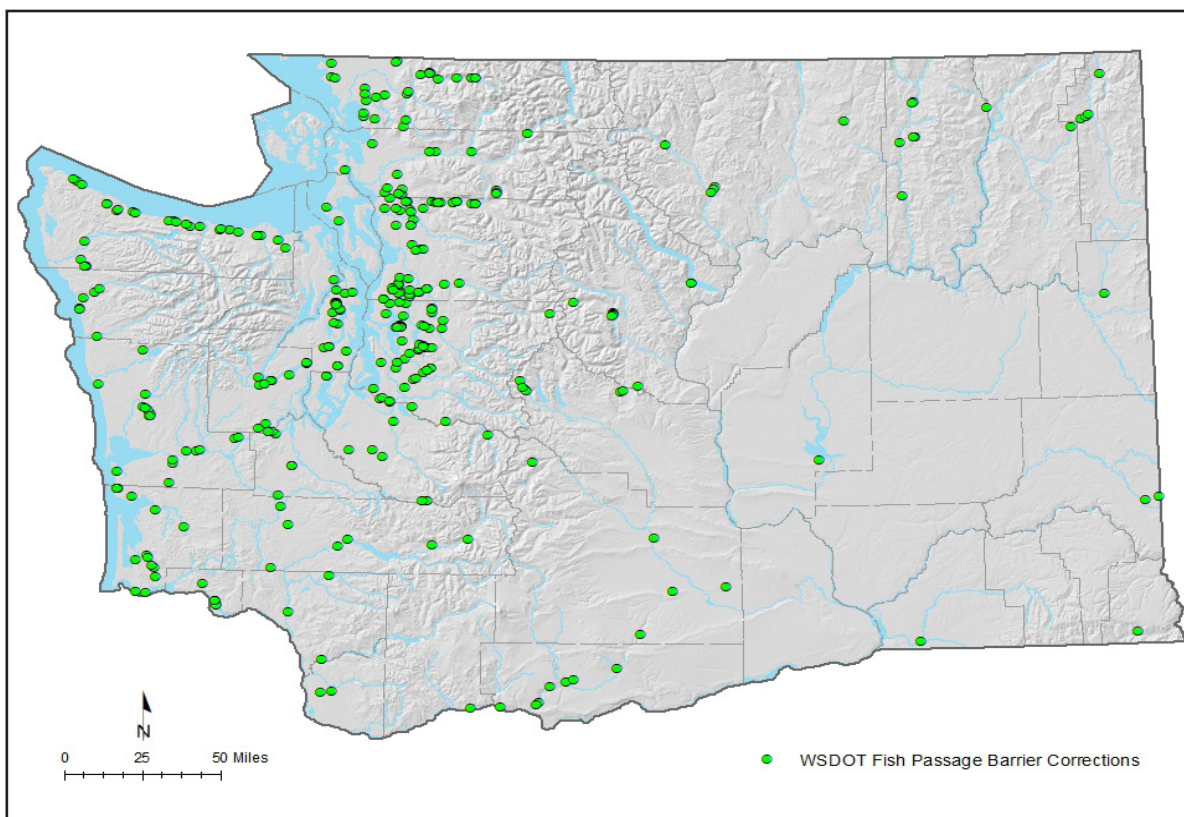


Figure 2. WSDOT fish passage barrier corrections since 1955



2018 Fish Passage Projects Completed

Sixteen fish passage projects were completed in 2018 (Figure 3, Table 1), correcting 15 barriers and opening up an estimated 104.73 miles (168.55 kilometers) of potential upstream habitat. One project corrected a previous correction that had reverted to a barrier.

Ten of the 16 projects corrected injunction barriers. Twelve of the 16 were funded by the WSDOT improvement subprogram I4, three projects were constructed during a larger transportation project, and one project used preservation funding. WSDOT partnered with the Wild Fish Conservancy on stream

restoration at State Route (SR) 203 Langlois Creek. At US 97 Swauk Creek, WSDOT partnered with the Mid-Columbia Fisheries Enhancement Group on habitat restoration. Additional partners on the Swauk Creek project included the Bureau of Land Management, WDFW, and the US Forest Service.

Table 2 shows a list of fish passage barrier corrections completed since 1955. Figure 2 is a map of these sites.

Figure 3. WSDOT fish passage project construction during 2018

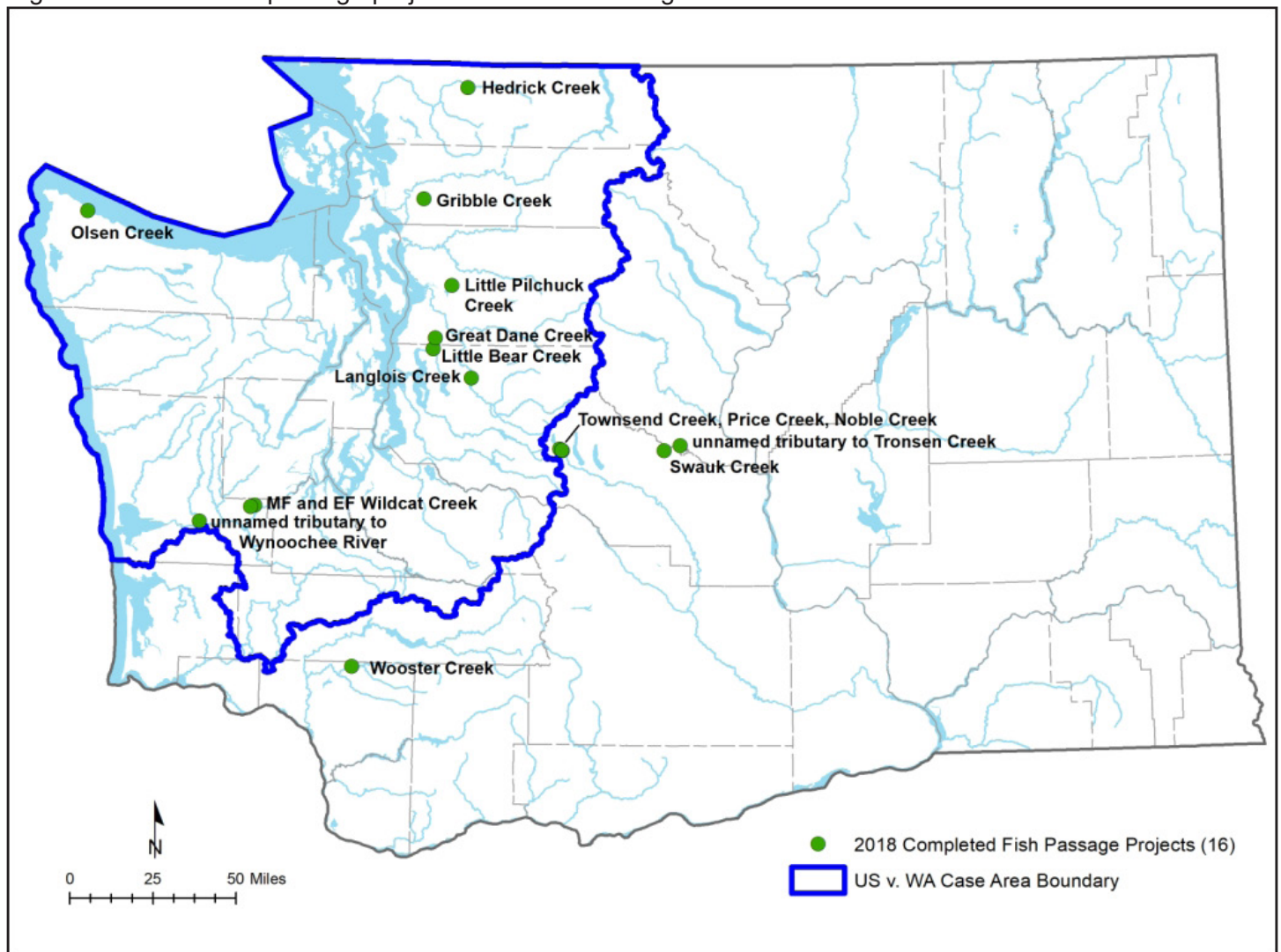


Table 1. Fish Passage Projects Completed in 2018. The 16 projects listed below corrected 10 barriers applicable to the Federal Court Injunction.

Site ID	WSDOT Region	Road	MP	Stream	WRIA	Lineal Gain ² (mi)	Incremental Gain ² (mi)	Funding
990187 ¹	NW	SR 542	32.00	Hedrick Creek	1	0.34	0.34	I4
991122 ^{1,4}	NW	SR 9	48.00	Gribble Creek	3	2.67	2.67	I4
990233 ¹	NW	SR 92	2.73	Little Pilchuck Creek	7	28.93	28.45 ³	I4
991717 ¹	NW	SR 203	4.98	Langlois Creek	7	5.39	5.39	I4
102 L062 ¹	NW	SR 202	0.10	Little Bear Creek	8	28.69	19.88 ³	I4
102 L020 ¹	NW	SR 524	12.44	Great Dane Creek	8	4.60	4.60	I4
991739 ¹	OL	SR 112	7.35	Olsen Creek	19	3.62	3.62	I4
22.0507 0.10 ¹	OL	SR 8	5.00	MF Wildcat Creek	22	18.64	18.64	I4
990133 ¹	OL	SR 8	6.30	EF Wildcat Creek	22	13.62	13.62	I4
994791 ¹	OL	US 12	9.04	unnamed tributary to Wynoochee River	22	1.65	1.65	I4
991634	SW	SR 504	17.00	Wooster Creek	26	1.76	1.76	I4
992948	SC	I-90	60.6	Townsend Creek	39	1.63	1.63	T
992950	SC	I-90	61.35	Price Creek	39	1.04	1.04	T
992951	SC	I-90	61.45	Noble Creek	39	NA	NA	T
990413	NC	US 97	159.24	Swauk Creek	39	4.36	1.01 ³	I4
992763	NC	US 97	165.54	unnamed tributary to Tronsen Creek	45	0.43	0.43	P
Total						117.37 188.89	104.73 mi 168.55 km	

¹ Barrier culvert applicable to the Federal Court Injunction corrected in 2018.

² Lineal gain represents the amount of potential fish habitat upstream of a corrected barrier. Incremental habitat gain is reported for sites having other WSDOT barriers located upstream. Incremental habitat gain is the amount of potential fish habitat upstream to the next WSDOT barrier.

³ Site with WSDOT barrier(s) upstream.

⁴ Previously corrected site.

NA - Habitat gain not determined; site not previously documented as a barrier.

Funding Codes:

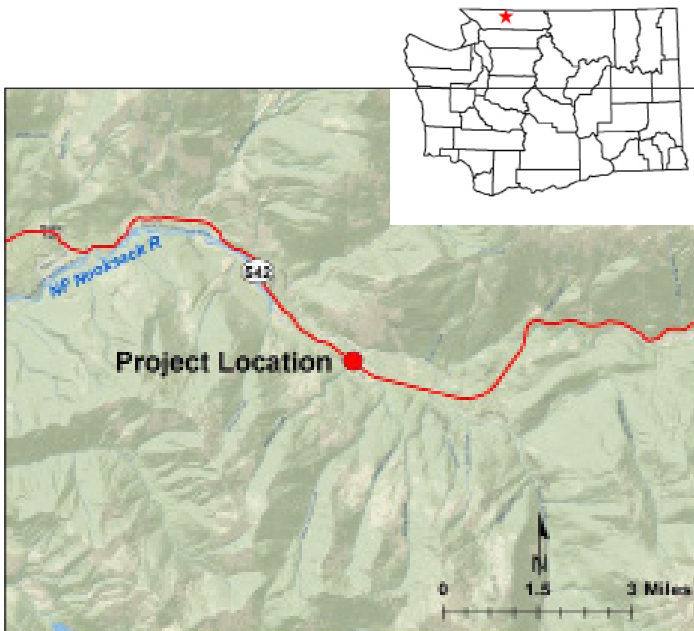
I4 = Improvement

P = Preservation

T=Transportation Project

Hedrick Creek, Tributary to North Fork Nooksack River

Fish Passage Improvement with I4 Funding



Hedrick Creek crosses SR 542 one mile west of the town of Glacier and drains to the North Fork Nooksack River.

Before Construction



Figure 4. The old crossing was a double barrel concrete culvert that was a barrier to fish passage due to excessive velocity through the structure.

After Construction



Figure 5. The new 127 ft (38.7 m) span bridge provides unimpeded access for salmon, steelhead, and trout to upstream habitat. The bridge reconnects the stream corridor and allows downstream movement of boulders and large wood in this seasonally high energy drainage.

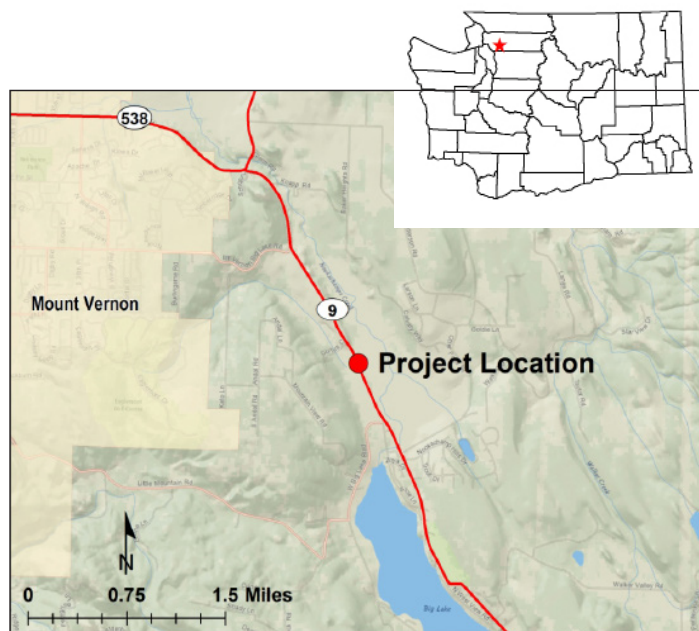
Gribble Creek, Tributary to West Fork Nookachamps Creek

Gribble Creek crosses SR 9 north of Big Lake near Mt. Vernon and drains to West Fork Nookachamps Creek.

Before Construction



Figure 6. The old crossing was a 4 ft (1.2 m) round concrete culvert retrofitted with metal baffles and log weirs in 2005 to improve fish passage in this culvert and a rails-to-trails culvert immediately downstream. Additional baffles and log weirs were installed a year later to achieve the desired effect of backwatering the culverts. Despite these efforts, the SR 9 culvert continued to block fish passage due to excessive velocity and low water depth.



After Construction



Figure 7. The new crossing under SR 9 is a 19 ft (5.8 m) wide by 15 ft (4.6 m) high concrete box culvert that incorporated the downstream rails-to-trails culvert. The project included regrading the stream as a meandering channel and installation of large wood, slash piles, and preformed pools to improve fish habitat complexity.

Little Pilchuck Creek, Tributary to Pilchuck River

Fish Passage Improvement with I4 Funding



Little Pilchuck Creek crosses SR 92 near the city limits of Lake Stevens and flows into the Pilchuck River. The creek in this vicinity is generally a low energy system defined by beaver activity upstream, which provides excellent rearing habitat for juvenile salmonids. Twenty-nine miles of available upstream habitat made this project a high priority for salmon recovery.

After Construction



Figure 9. The new crossing is a 65 ft (19.8 m) wide by 23 ft (7.0 m) high bottomless arch that restores fish passage in Little Pilchuck Creek as it flows under SR 92. This project realigned the creek approximately 90 ft (27.4 m) to the northeast to alleviate channel confinement from the intersection and rail grade. Approximately 465 linear ft (141.7 m) of the creek was regraded into a meandering channel at the new crossing location and root wads/ large wood structures were installed to enhance fish habitat complexity and provide refuge for juvenile salmonids.

Before Construction



Figure 8. The old crossing was a 12 ft (3.7 m) wide, 6 ft (1.8 m) high, and 192 ft (58.5 m) long concrete box culvert that was undersized for the channel and resulted in excessive velocities at peak flows. The creek channel was laterally confined due to the proximity of a nearby intersection and an abandoned railroad grade.

Langlois Creek, Tributary to Snoqualmie River

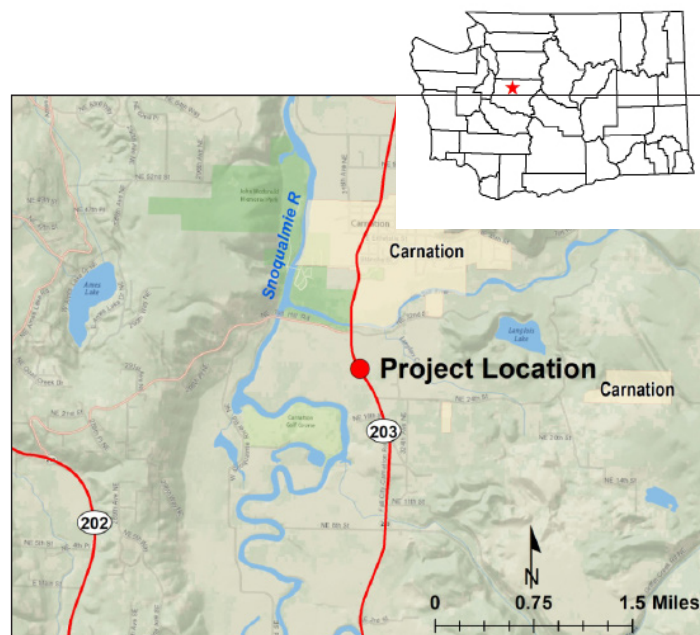
Fish Passage Improvement with I4 Funding

Langlois Creek crosses SR 203 one mile south of the City of Carnation and flows into the Snoqualmie River across from the Blue Heron Golf Course. Wild Fish Conservancy partnered with WSDOT on this project, which allowed for additional habitat restoration up-stream of the WSDOT right-of-way.

Before Construction



Figure 10. The previous crossing was a 46 ft (14.0 m) long, 2.5 ft (0.8 m) diameter concrete culvert with wing walls that was a partial barrier to fish due to excessive slope through the structure. The structure was nearing the end of its useful life and starting to deteriorate. The outlet scour pool was causing road embankment failure and nominal damage to the asphalt shoulder on the downstream side of the highway. Langlois Creek would often flood over SR 203 during winter due to the undersized culvert and ditched channel lacking high water storage capacity.



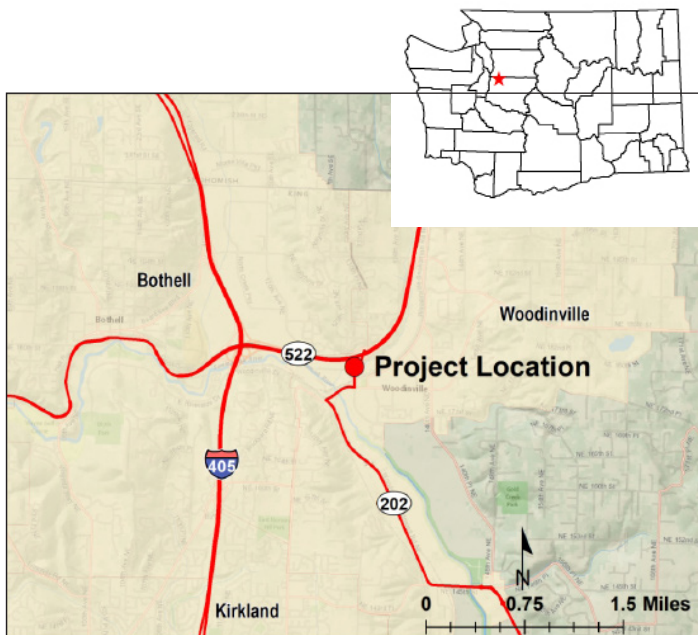
After Construction



Figure 11. The new crossing is a concrete box culvert 18 ft (5.5 m) wide, 9 ft (2.7 m) high, and 46 ft (14.0 m) long. Large wood habitat elements and a robust planting plan were included in the project. A water main for the City of Carnation was relocated as part of the project. Wild Fish Conservancy restored 1,000 linear ft (304.8 m) of stream channel upstream of SR 203, adding meanders and large wood. This project improved access to 5.4 mi (8.7 km) of habitat upstream of SR 203 for chum, Chinook, coho, steelhead, and trout.

Little Bear Creek, Tributary to Sammamish River

Fish Passage Improvement with I4 Funding



Little Bear Creek crosses SR 202 at milepost 0.10 within the city limits of Woodinville and drains to the Sammamish River through a developed retail district. Upstream, Little Bear Creek flows from the north and is bounded by SR 522.

Before Construction



Figure 12. The old crossing was a 10 ft (3.0 m) wide by 6 ft (1.8 m) high box culvert that was undersized for the channel, resulting in a velocity barrier to migrating salmonids during high flows. Stream bed grade controls installed throughout the downstream reach to minimize channel regrade and facilitate fish passage were underperforming and some were deteriorating. Serious flooding in 2007 along the Little Bear Creek corridor prompted planning to improve hydraulic capacity of the SR 202 crossing.

After Construction

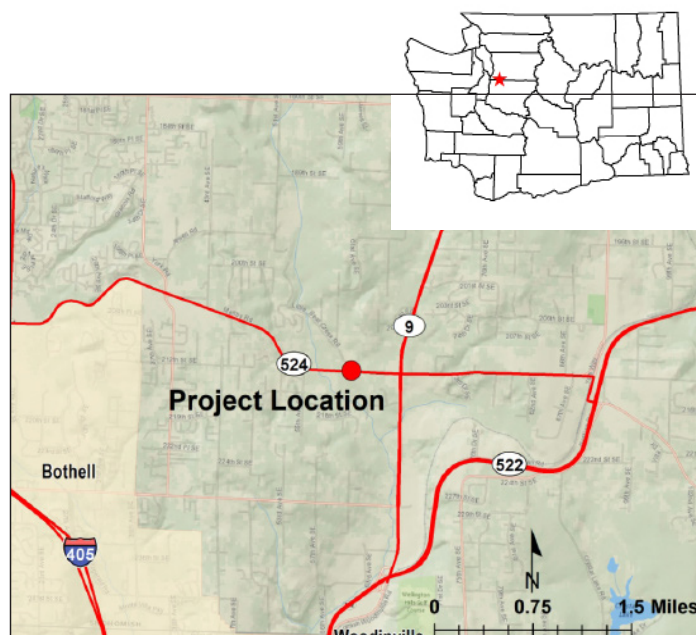


Figure 13. The new crossing is a concrete bottomless arch measuring 30 ft (9.1 m) wide by 23.5 ft (7.2 m) high that restores fish passage. The downstream grade controls are slated to be removed as part of a future City of Woodinville stream restoration project, which will bring the channel into an equilibrium slope through the SR 202 crossing.

Great Dane Creek, Tributary to Little Bear Creek

Fish Passage Improvement with I4 Funding

Great Dane Creek crosses under SR 524 east of Bothell at milepost 12.44 and drains to Little Bear Creek.



Before Construction



Figure 14. The old crossing was a box culvert 4 ft (1.2 m) wide by 3 ft (0.9 m) high and was a partial barrier to fish passage due to excessive velocity at high flows. The culvert was retrofitted during past highway work but did not adequately provide fish passage long term.

After Construction



Figure 15. The new crossing is a concrete box culvert 19 ft (5.8 m) wide by 9.3 ft (2.8 m) high that allows unimpeded passage of fish and large wood through the structure. The project included installation of four pieces of wood at the outlet and a slight realignment to remove a sharp bend at the inlet. Two rock barbs were added inside the culvert to provide habitat complexity. Salmonids and a redd were observed upstream of the new culvert during the compliance inspection.

Olsen Creek, Tributary to the Strait of Juan de Fuca

Fish Passage Improvement with I4 Funding



WSDOT worked closely with the Makah Tribe on the Olsen Creek project as SR 112 is the only access for residents to Neah Bay and tribal lands. Olsen Creek drains to the Strait of Juan de Fuca under SR 112 in western Clallam County and provides freshwater habitat for chum, coho, steelhead, and trout. SR 112 in this vicinity bisects the intertidal area.

Before Construction



Figure 16. The old crossing consisted of two 6 ft (1.8 m) diameter concrete culverts. The majority of flow during low flow periods was conveyed through the left bank culvert. The crossing was considered a fish passage barrier due to excessive velocity through the structures during high flow conditions and a minimum depth barrier due to too little water during low flow conditions.

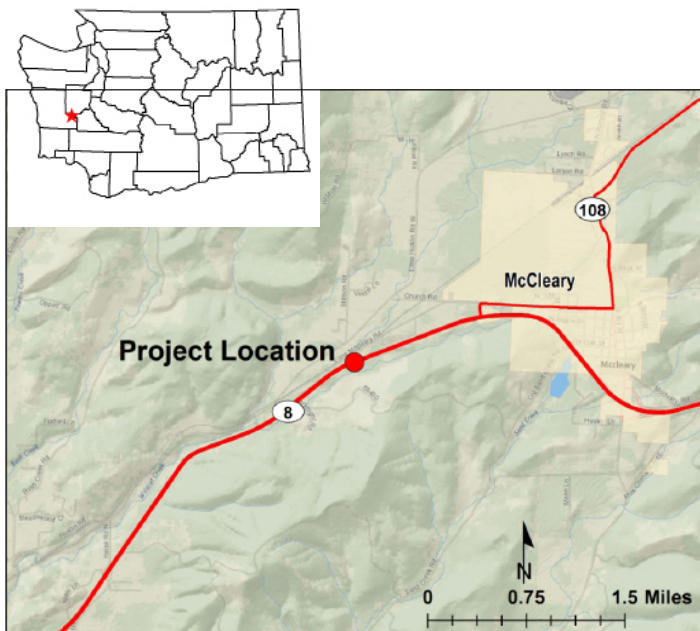
After Construction



Figure 17. The new crossing is a full span concrete bridge with a 45 ft (13.7 m) opening that provides access to 3.6 mi (5.8 km) of potential habitat for fish. The project included installation of large wood upstream and downstream of the new crossing to provide bank protection and refuge from predators during high tide.

Middle Fork Wildcat Creek, Tributary to East Fork Wildcat Creek

Fish Passage Improvement with I4 Funding



Middle Fork Wildcat Creek crosses SR 8 at milepost 5 between the towns of Elma and McCleary and drains to East Fork Wildcat Creek about 600 feet (182.9 meters) downstream of the highway. SR 8 is a divided highway at this location with two lanes traveling east and two lanes traveling west.

After Construction

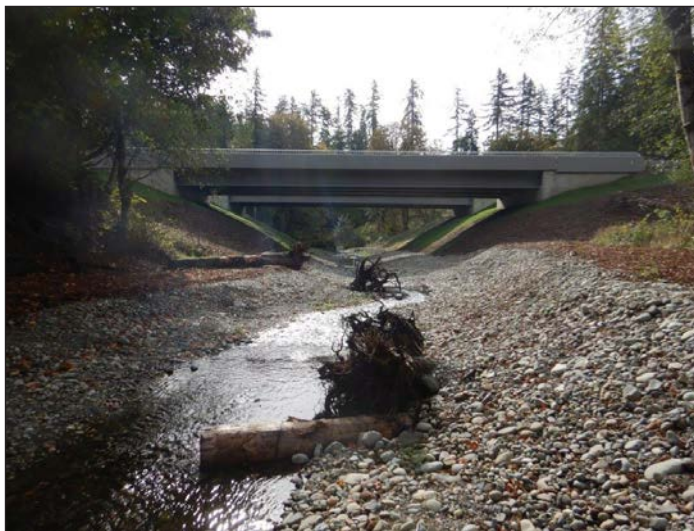


Figure 19. The new crossings are two 110 ft (33.5 m) long bridges for eastbound and westbound traffic on SR 8. The project included installing large wood and constructing pre-formed pools to increase fish habitat complexity and improves access to over 18 mi (29 km) of upstream habitat.

Before Construction

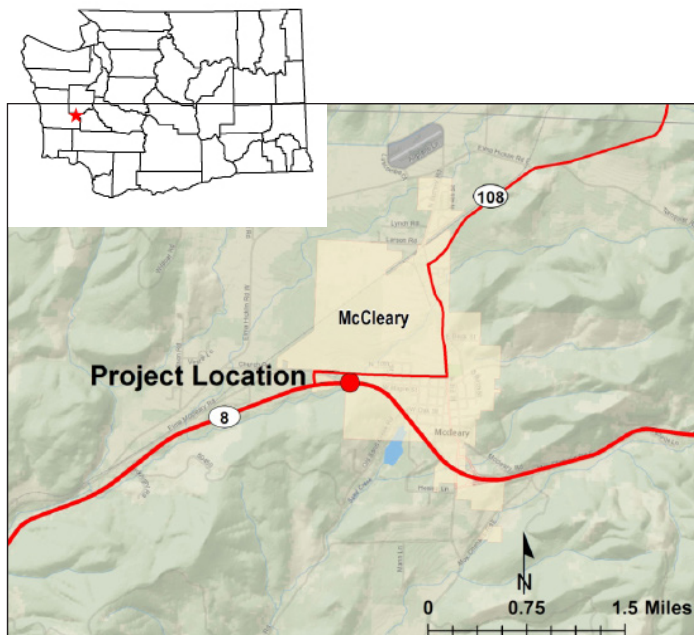


Figure 18. The old crossing was a 3-sided concrete structure, 20 ft (6.1 m) wide by 25 ft (7.6 m) high. In 2005, a series of boulder step pools was constructed in the channel immediately downstream of SR 8 to protect the existing structure from bed scour that was undermining the spread footings and wing walls. The site was a fish passage barrier due to an excessive water surface drop.

East Fork Wildcat Creek, Tributary to Wildcat Creek

Fish Passage Improvement with I4 Funding

East Fork Wildcat Creek crosses SR 8 at milepost 6.3 near the town of McCleary. SR 8 is a divided highway at this location with two lanes traveling east and two lanes traveling west. East Fork Wildcat Creek crosses back under SR 8 via two bridges approximately two miles west before draining into Wildcat Creek.



Before Construction



Figure 20. The old crossing was a double-box culvert 10 ft (3.0 m) wide by 8 ft (2.4 m) high on each side and was a fish passage barrier due to excessive velocity during high flow conditions.

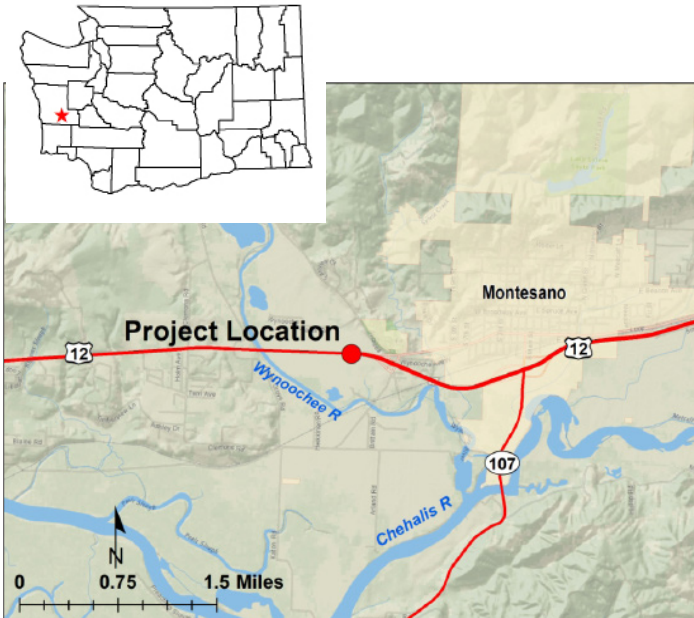
After Construction



Figure 21. The new crossings are two 160 ft (48.8 m) long bridges for eastbound and westbound lanes. Large wood provides refuge for fish and increases stream habitat complexity. Correction of this barrier opens 13.6 mi (21.9 km) of potential habitat upstream for chum, Chinook, coho, steelhead, searun cutthroat, and resident trout.

Unnamed Tributary to Wynoochee River

Fish Passage Improvement with I4 Funding



This Wynoochee River tributary crosses US 12 at the western edge of the town of Montesano and flows through agriculture fields before reaching the Wynoochee River. This small tributary provides flood relief from the Chehalis and Wynoochee rivers, as well as off-channel habitat for coho, searun cutthroat trout, and resident trout.

Before Construction



Figure 22. The old crossing was a 3 ft (0.9 m) round corrugated steel culvert that was a barrier to fish passage due to excessive velocity during high flow conditions and a water depth barrier at low flow. Livestock had access to the creek at the inlet and outlet of the culvert, which caused heavy erosion of the stream banks.

After Construction



Figure 23. The new crossing is a fish passable concrete box culvert 24 ft (7.3 m) wide by 9.2 ft (2.8 m) high. An increased culvert width accommodates additional storage capacity in this creek at times when the Wynoochee and Chehalis rivers are full. WSDOT worked with the upstream landowner to remove a second fish passage barrier culvert and restoration of the creek channel. Fencing was installed upstream and downstream along the highway right-of-way to exclude livestock from the creek near the culvert and to limit access to the highway.

Wooster Creek, Tributary to North Fork Toutle River

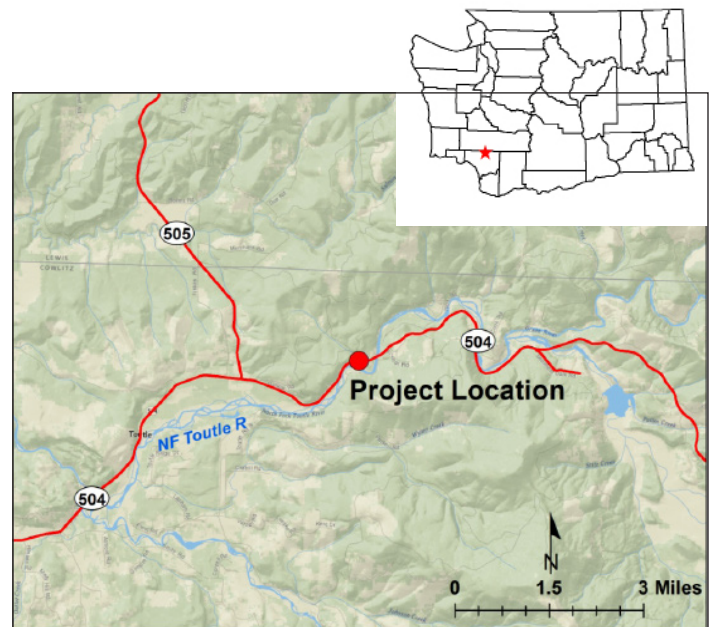
Fish Passage Improvement with I4 Funding

Wooster Creek in Cowlitz County flows under SR 504 (Spirit Lake Highway) 7 miles east of the town of Toutle and drains to the North Fork Toutle River. SR 504 and Wooster Creek were heavily impacted by the eruption of Mt. Saint Helens, which deposited material in the creek and washed away large sections of the road.

Before Construction



Figure 24. The old 4.5 ft (1.4 m) diameter corrugated metal culvert was installed when SR 504 was rebuilt following the 1980 Mt. Saint Helens eruption. The old crossing required repeated maintenance due to the geomorphic instability of the creek and road following the eruption. The crossing was a barrier to fish passage due to an excessive water surface drop at the outlet.



After Construction



Figure 25. The new crossing is a 20 ft (6.1 m) wide concrete bottomless arch with secant pile walls that will allow the channel to vertically regrade over time. This correction provides access to 1.76 mi (2.8 km) of habitat upstream for coho, steelhead, searun cutthroat, and resident trout.

Townsend Creek, Tributary to Keechelus Lake

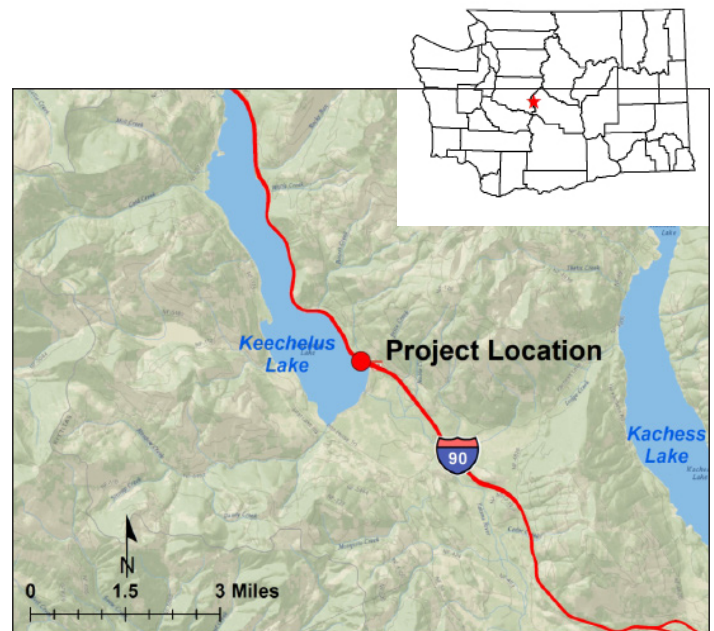
Fish Passage Improvement during a Transportation Project

Townsend Creek crosses I-90 at milepost 60.6, west of Easton, and empties directly to Keechelus Lake above Keechelus Dam.

Before Construction



Figure 26. The old crossing was a 6 ft (1.8 m) by 6 ft (1.8 m) concrete box culvert that was a barrier to fish passage.



After Construction



Figure 27. The new crossing was installed as part of a larger transportation project on I-90 that added lanes and installed wildlife crossings between Keechelus Dam and the Stampede Pass interchange. The new culvert is a stream simulation 25 ft (7.6 m) wide by 14 ft (4.3 m) high concrete box culvert that allows for unimpeded passage for resident rainbow, cutthroat, and bull trout.

Price Creek, Tributary to Yakima River

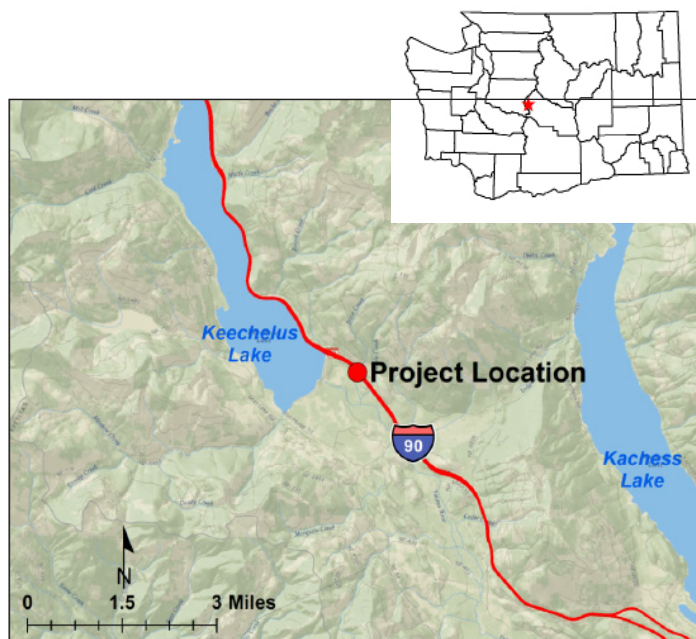
Fish Passage Improvement during a Transportation Project

Price Creek crosses I-90 at milepost 61.35 west of Easton, and drains into the Yakima River below Keechelus Dam.

Before Construction



Figure 28. The old crossing was a 10 ft (3.0 m) by 10 ft (3.0 m) concrete box culvert that was a barrier to fish passage due to an excessive water surface drop at the outlet and sheet flow through the culvert.



After Construction



Figure 29. The new crossings are twin 120 ft (36.6 m) bridges for eastbound and westbound lanes of I-90. The new structures were installed as part of a larger transportation project on I-90 that added lanes and installed wildlife crossings between Keechelus Dam and the Stampede Pass interchange. The bridges allow unimpeded passage for fish and a variety of wildlife species through the Price Creek corridor and open over 1 mi (1.6 km) of habitat upstream for steelhead, resident trout, and bull trout.

Noble Creek, Tributary to Price Creek

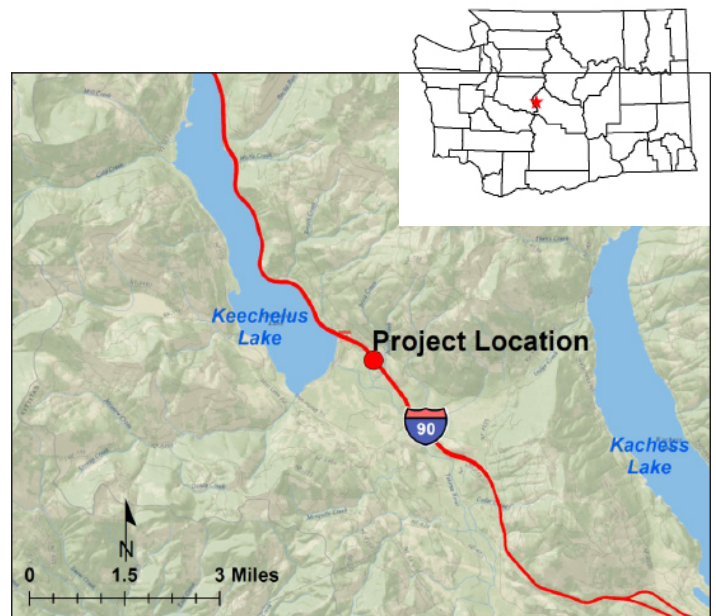
Fish Passage Improvement during a Transportation Project

Noble Creek crosses I-90 at milepost 61.45, west of Easton, and drains to Price Creek. Noble Creek is a perennial stream with strong spring influence.

Before Construction



Figure 30. The old crossing was a 4 ft (1.2 m) diameter culvert. Noble Creek was previously classified as non-fish-bearing and passability was not assessed. Noble Creek was rerouted during the project and now meets physical criteria to be considered a fish-bearing stream.



After Construction

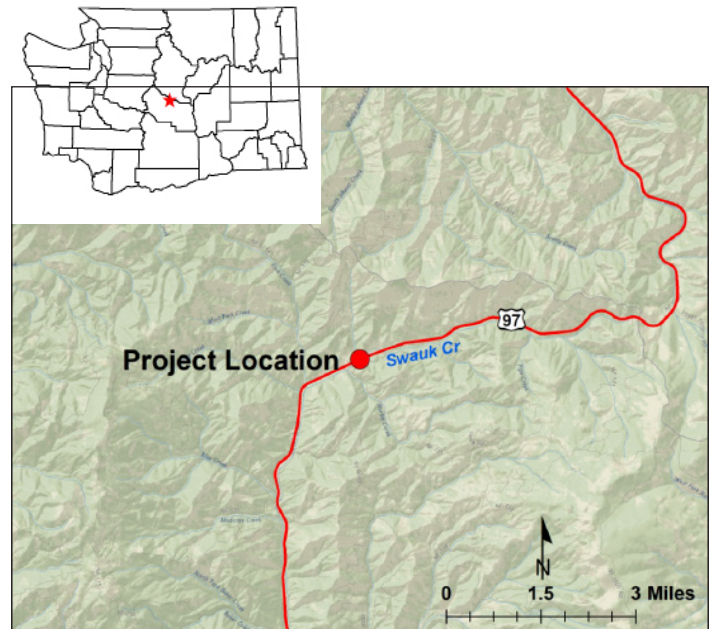


Figure 31. The new crossings are twin 120 ft (36.6 m) bridges for eastbound and westbound lanes of I-90. The structures were installed as part of a larger transportation project on I-90 that added lanes and installed wildlife crossings between Keechelus Dam and the Stampede Pass interchange. The bridges allow unimpeded passage for steelhead, trout, and a variety of wildlife species through the Noble Creek corridor.

Swauk Creek, Tributary to Yakima River

Fish Passage Improvement with I4 Funding

US 97 crosses Swauk Creek in Kittitas County nine times between Blewett Pass and the junction of SR 970. The Mill crossing at milepost 159.24 crosses the highway near the old mining town of Liberty. Completion of US 97, which follows the Swauk Creek corridor, contributed to the restriction of lateral migration of the creek channel. Replacement of the Mill crossing is part of an ongoing project that brings together WSDOT, US Fish and Wildlife Service (USFS), WA Department of Fish and Wildlife (WDFW), Bureau of Land Management (BLM), and the Mid-Columbia Fisheries Enhancement Group (MCFEG). The project includes restoring fish passage at two US 97 crossings (mileposts 159.26 and 159.67) and restoring stream function in the reach between the two highway crossings.



Before Construction



Figure 32. The old crossing, termed the Mill crossing, was a 9 ft (2.7 m) wide by 6 ft (1.8 m) high multi plate corrugated metal culvert installed in 1952. The crossing was a barrier to fish passage due to excessive slope.

After Construction

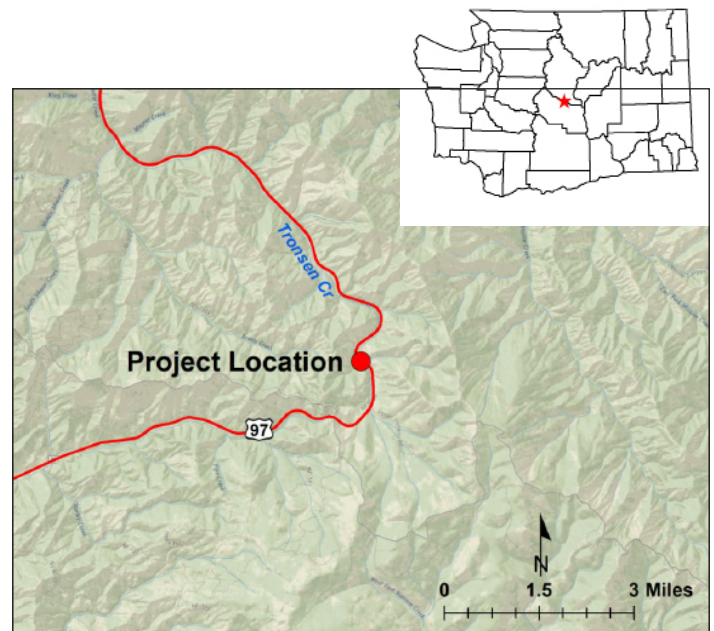


Figure 33. The new Mill crossing is a 75 ft (22.9 m) long by 25 ft (7.6 m) wide by 10.3 ft (3.1 m) high concrete box culvert that allows unimpeded fish passage for steelhead, resident trout, and bull trout. The project included installation of large wood and constructed stream meanders.

Unnamed Tributary to Tronsen Creek

Fish Passage Improvement with Preservation Program Funds

This unnamed tributary to Tronsen Creek crosses US 97 at milepost 165.54 near the summit of Blewett Pass. US 97 follows Tronsen Creek north to its confluence with Peshastin Creek.



Before Construction



Figure 34. The old crossing was a 2 ft (0.6 m) diameter corrugated metal culvert with a surface grate at the inlet that was a barrier to migrating steelhead as well as bull trout and resident trout.

After Construction



Figure 35. The new crossing is a 13 ft (4 m) wide by 7.5 ft (2.3 m) high concrete box culvert that restores access to 0.43 mi (0.7 km) of upstream habitat for steelhead and trout and facilitates use by small terrestrial wildlife.

Table 2. WSDOT Fish Passage Barrier Corrections Completed. Sorted by Year, Region, Road, and Milepost.

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
OL	990480	SR 112	49.48	Whiskey Cr	19.0020	1955	1.69	
OL	15.0051 0.10	SR 302	11.36	Little Minter Cr	15.0051	1982	0.38	
OL	15.0051 0.20	SR 302	11.42	Little Minter Cr	15.0051	1982	3.42	
OL	14.0010 0.10	US 101	356.8	Countyline Cr	14.0010	1985	0.47	
NW	08.0049 3.00	I-5 NB	177.67	McAleer Cr	08.0049	1986	0.09	
OL	14.0009A 0.06	US 101	357.9	Holiday Valley Cr	14.0009A	1986	1.10	
NW	03.0354A 0.04	SR 20	77.7	Little Careys Cr	03.0354A	1987	0.53	
NW	996965	I-90	20.42	EF Issaquah Cr tributary	08.0186	1990	1.14	
OL	990448	US 101	246.4	Tumwater Cr Fishway	18.0256	1991	5.55	19,991
NW	990142	SR 202	11.96	Evans Cr Fishway	08.0106	1992	4.71	319,044
OL	990323	SR 3	33.7	Parish Cr Fishway	15.0220	1992	1.00	14,835
SW	990171	SR 6	8.9	Green Cr Fishway Upgrade	24.0341	1992	1.10	8,000
NW	995411	I-5	246.75	Chuckanut Cr	01.0626	1993	0.71	
NW	01.0626 0.35	SR 11	18.6	Chuckanut Cr Fishway	01.0626	1993	4.78	68,788
NW	991712	US 2	18	Unnamed tributary to Skykomish R Culvert Replacement	07.0864	1993	1.07	60,000
OL	15.0280 1.00	SR 308	1.15	Big Scandia Cr	15.0280	1993	4.00	
NW	08.0302 0.00	SR 169	23.62	Maplewood Cr	08.0302	1994	1.20	
NW	08.0077 0.20	SR 527	6.57	Penny Cr	08.0077	1994	8.36	
NW	990014	SR 542	3.5	Squalicum Cr Fishway	01.0552	1994	2.95	68,000
OL	990021	US 101	253.85	Bagley Cr Fishway	18.0183	1994	6.49	40,704
SC	990189	US 97	37.14	Highbridge Springs	37	1994	0.70	
SW	990363	US 101	29.8	SF Nemah R Fishway	24.0503	1994	2.71	34,986
NW	990272	SR 104	29.65	McAleer Cr	08.0049	1995	3.32	
NW	08.0070A 0.01	SR 527	4	Sulphur Springs Cr	08.0070A	1995	0.20	
NW	08.0075 0.70	SR 527	4.46	Silver Cr No2	08.0075	1995	1.60	
NW	08.0070B 0.30	SR 527	6.32	Nickel Cr	08.0070B	1995	0.80	
NW	990644	SR 530	31.01	Stillaguamish R tributary	05	1995	0.81	
NW	991168	SR 530	31.9	Stillaguamish R tributary	05	1995	0.12	
OL	996952	SR 160	3.8	Curley Cr	15.0185	1995	10.13	
OL	990219	US 101	267.18	Johnson Cr Fishway	17.0301	1995	4.51	121,945
NW	991519	SR 18	19.59	Carey Cr tributary	08.0218A	1996	1.09	
NW	990064	SR 18	19.76	Carey Cr	08.0218	1996	11.32	
NW	105 R042117a	SR 164	8.24	Pussyfoot Cr Culvert Replacement; culvert	10.0048	1996	9.33	117,566
NW	990271	SR 530	29.63	Mc Govern Cr	05.0168	1996	5.29	
NW	991162	SR 530	31.2	NF Stillaguamish R tributary	05.0168X	1996	0.12	
NW	991164	SR 530	32.51	NF Stillaguamish R tributary	05	1996	0.10	
NW	991154	SR 530	55.07	Hatchery Cr	04.1062	1996	0.22	
NW	991153	SR 530	55.9	Skagit R tributary	04.0707	1996	0.07	
OL	990348	SR 112	3.99	Rasmussen Cr Culvert Replacement	19.0230	1996	0.82	545,699
OL	990178	US 101	146.85	Harlow Cr Fishway	21.0134	1996	10.49	82,685
OL	990197	US 101	171.7	Huelsdonk Cr Fishway	20.0437 D	1996	0.71	18,594
OL	990169	US 101	189.4	Grader Cr Fishway	20.0237	1996	2.79	189,964
EA	990350	SR 20	388.13	Renshaw Cr	62.0310	1997	0.07	
EA	990351	SR 20	389.5	Renshaw Cr	62.0310	1997	0.73	
NW	990390	SR 18	8.9	Soosette Cr	09.0073	1997	4.71	
NW	991155	SR 530	54.6	Lyle Cr	04.1064	1997	1.30	
OL	990224	SR 3	57.1	Kinman Cr Culvert Replacement and Baffles Installation	15.0368	1997	2.25	365,902
OL	22.0349 0.70	US 12	12.36	Camp Cr	22.0349	1997	6.20	
OL	991501	US 101	103.65	Unnamed tributary to Big Cr - new fishway	22.0057	1997	2.13	126,327
OL	991581	US 101	104.9	Unnamed tributary to Fairchild Fishway	22.0052	1997	3.39	198,126
OL	990143	US 101	105.6	Fairchild Cr Fishway	22.0051	1997	2.63	195,742
OL	990164	US 101	186.3	Fuhrman Cr	20.0237E	1997	0.36	
OL	990156	US 101	186.41	Frakker Cr	20	1997	0.12	
OL	990716	US 101	186.45	Frakker Cr tributary	20	1997	0.12	
OL	991512	US 101	186.7	Forgotten Marsh	20.0237N	1997	0.16	

Table 2. (Continued)

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
SW	992462	US 101	28.92	Roaring Cr Sl	24.0563	1997	0.26	
EA	990250	SR 20	384.95	Lost Cr	62.0322	1998	16.16	
NW	05.0021 4.10	I-5	216.73	WF Church Cr Fishway	05.0021	1998	4.47	17,101
NW	07.0383A 0.50	SR 202	13.8	Dry Cr	07.0383A	1998	1.75	
NW	101S-23	SR 203	7.83	Harris Cr tributary	07.0285	1998	3.14	
NW	997679	SR 509	24.42	Miller Cr	09.0371	1998	3.59	
NW	994239	SR 520	6.27	Yarrow Cr	08.0252	1998	0 ⁴	
OL	990278	SR 108	8.89	McDonald Cr Fishway	14.0023	1998	3.67	260,615
OL	991852	SR 303	6.9	Barker Cr	15.0255	1998	2.76	
OL	990121	SR 305	12.8	Dogfish Cr	15.0286	1998	0.08	
OL	991532	US 12	13.8	Chehalis R tributary	22.0354	1998	2.39	
OL	991502	US 101	101.1	Tributary to S Branch Big Cr Culvert Replacement	22.0059	1998	1.62	250,899
OL	991263	US 101	162.15	Big Cedar Cr Baffles Installation; baffles re-installed 2001	20.0576	1998	1.46	121,328
OL	990400	US 101	162.6	Steamboat Cr	20.0574	1998	4.62	23,000
SW	990119	SR 14	55.8	Dog Cr	29.0130	1998	0.08	
SW	990211	SR 14	66	Jewett Cr Culvert Replacement	29.0342	1998	0.13	413,000
SW	990116	SR 142	5.2	Dillacort Cr	30.0009	1998	0.60	
NC	990149	SR 971	8.9	First Cr Bridge	47.0096	1999	10.56	287,000
NC	990145	SR 971	9.1	First Cr Bridge	47.0096	1999	0.01	287,000
NW	991160	SR 530	25.94	Schoolyard Cr Fishway	05.0145	1999	3.53	360,289
NW	990433	SR 900	19.5	Tibbets Cr Fishway	08.0169	1999	1.10	147,000
OL	991270	SR 109	36.43	Unnamed tributary to Pacific Ocean Fishway	21.0715	1999	1.91	189,566
OL	991690	US 101	111.9	Stevens Cr tributary	22	1999	0.60	
OL	990249	US 101	174	Lost Cr	20.0440	1999	0.83	
SW	992272	I-5	42.4	Cowlitz R tributary	26.0129	1999	0.74	
SW	990035	SR 4	35.6	Birnie Cr Fishway	25.0281	1999	2.44	67,570
SW	990948	US 12	127.44	Dry Cr	26.1119	1999	3.38	
SW	991698	US 101	24.13	Willapa Bay tributary	24.0673	1999	0.41	
EA	990881	SR 20	380.1	Lk Thomas tributary	59	2000	0.35	
EA	992006	SR 21	172.17	Lambert Cr	60.0327	2000	11.97	
NC	980108	SR 153	29.28	Beaver Cr Culvert Replacement	48.0307	2000	1.86	765,461
NW	990622	I-5	211.5	Secret Cr	05.0065	2000	2.26	45,107
NW	991708	SR 20	90.13	Skagit R tributary	04	2000	0.17	
NW	105 R071916a	SR 410	48.29	Boundary Cr	10.0250	2000	0.37	
NW	990262	SR 522	1.87	Maple Leaf Cr	08.0033	2000	1.46	
NW	990294	SR 528	2.52	Munson Cr	07.0073	2000	1.07	
OL	991295	SR 105	31.1	South Bay tributary	22	2000	0.22	
OL	990910	SR 106	6.95	Dalby Cr	14	2000	0.53	
OL	990466	US 101	246.9	Valley Cr Baffles and Roughened Channel	18.0249	2000	1.26	102,297
SC	990436	US 97	57.2	Toppenish Cr	37.1178	2000	13.13	
SW	991684	SR 506	2.33	Unnamed tributary to Stillwater Cr Culvert	26.0429B	2000	0.80	99,000
EA	990312	SR 20	309.31	O'Brien Cr Culvert Replacement	52.0394	2001	7.28	302,000
EA	990299	SR 20	309.96	NF O'Brien Cr Culvert Replacement	52.0394A	2001	0.13	302,000
EA	990300	SR 20	310.06	NF O'Brien Cr Culvert Replacement	52.0394A	2001	0.92	302,000
NC	990381	US 2	87.1	Skinney Cr Culvert Replacement	45.0701	2001	1.90	480,000
NC	990382	US 2	87.67	Skinney Cr Culvert Replacement	45.0701	2001	0.30	480,000
NC	990383	US 2	88.03	Skinney Cr Culvert Replacement	45.0701	2001	0.30	480,000
NW	DM10	SR 20	114.94	Damnation Cr	04.1844	2001	1.48	
OL	991797	SR 3	25.31	Sweetwater Cr Culvert Replacement	15.0504	2001	0.68	261,000
OL	991729	SR 112	19.56	Clallam R tributary	19	2001	0.13	
OL	991545	SR 112	19.89	Clallam R tributary	19.0129A	2001	0.13	
SW	990220	SR 4	4.5	Johnson Cr Culvert Replacement	24.0581	2001	2.12	269,000
SW	991397	SR 4	25.91	Skamokawa R tributary	25	2001	0.15	

Table 2. (Continued)

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
SW	992271	SR 142	3.65	Knight Cr	30.0008	2001	7.19	
SW	990036	SR 409	3.85	Birnie Cr Fishway	25.0281	2001	0.09	322,000
SW	991440	SR 503	49.03	Kenyon Cr Fishway	27.0320	2001	0.89	224,000
NC	990202	US 97	158.32	Iron Cr	39.1209	2002	8.60	
NW	08.0268 0.80	I-405	10.12	Coal Cr	08.0268	2002	5.12	155,710
NW	993115	I-405	29.67	Martha Cr	08	2002	1.75	
NW	990344	SR 9	28.38	Portage Cr	05.0036	2002	4.42	
NW	991166	SR 9	32.2	Bryant Cr	05.0129	2002	0.34	
NW	LP23	SR 9	35.46	Pilchuck Cr tributary	05.0080B	2002	1.08	
NW	LP27	SR 9	35.52	unnamed trib to unnamed trib	05.0080C	2002	0.19	
NW	LP28	SR 9	35.7	unnamed trib to unnamed trib	05	2002	0.12	
NW	990625	SR 9	38.57	unnamed trib to unnamed Pilchick Cr trib	05.0080H	2002	0.66	
NW	LP32	SR 9	38.69	unnamed trib to unnamed trib	05	2002	0.49	
NW	NC180	SR 9	39.69	Lk McMurray tributary	03	2002	0.22	
NW	NC170	SR 9	39.87	unnamed trib to unnamed trib	03	2002	0.18	
NW	995398	SR 9	69.88	Samish R tributary	03	2002	0.22	
NW	08.0110 0.10	SR 202	11.05	Rutherford Cr	08.0110	2002	1.10	
NW	990291	SR 530	44	Moose Cr Culvert Replacement	05.0257	2002	4.15	140,000
NW	990317	SR 530	44.27	Fink Cr Culvert Replacement	05.0257A	2002	4.15	140,000
NW	991741	SR 534	1.2	Unnamed tributary to Bulson Cr Fishway	03.0199	2002	4.93	790,555
SC	990440	SR 241	9.17	Sulphur Cr Wasteway tributary	37	2002	2.57	
SC	990409	SR 410	82.8	Wash Cr	38	2002	0.14	
SW	990071	SR 401	8.8	Cement Cr Fishway	24.0598	2002	4.02	200,000
EA	990180	SR 21	155.06	Golden Harvest Cr	52.0352	2003	13.53	
NW	08.0183 1.00	I-90	17	EF Issaquah Cr	08.0183	2003	0.89	
NW	995981	SR 9	0.88	Little Bear Cr tributary	08	2003	0.47	
NW	990208	SR 18	12.7	Jenkins Cr	09.0087	2003	10.18	
NW	990209	SR 18	13.8	Jenkins Cr	09.0087	2003	5.10	
NW	995977	SR 20	25.77	Penn Cove tributary	06.0003	2003	0.79	
NW	991199	SR 167	23.65	Upper Springbrook Cr	9.002	2003	0.53	
NW	101S-27	SR 203	12.76	Deer Cr	07	2003	0.73	
NW	991189	SR 527	6.99	North Cr tributary	08	2003	0.31	
OL	161180	US 101	167.44	Fletcher Cr Fishway	20.0426	2003	1.36	19,005
SW	990377	US 12	81.22	Silver Cr Culvert Replacement	26.0540	2003	4.22	527,000
NW	994411	I-90	15.48	Tibbets Cr Bridge	08.0169	2004	4.23	5,536,555
NW	990136	SR 11	6.84	Edison Sl	03.0001	2004	8.78	
NW	105 S012018a	SR 509	10.71	Lakota Cr	10.0386	2004	1.32	
NW	990434	SR 542	15.32	Jim Cr	01	2004	0.59	
NW	995578	SR 542	44.14	NF Nooksack R tributary	01	2004	0.12	
NW	995580	SR 542	44.34	NF Nooksack R tributary	01	2004	0.12	
NW	995584	SR 542	45.57	Happy Valley Creek - NF Nooksack tributary	01	2004	0.45	
OL	115 MC176	SR 106	7.06	Alderbrook Cr	14	2004	0.57	
OL	19.0110 0.50	SR 112	32.02	Jim Cr Culvert Replacement	19.0110	2004	8.76	870,000
OL	18.0234 1.10	US 101	250	Ennis Cr Fishway Upgrade	18.0234	2004	5.56	58,165
OL	17.0285 0.20	US 101	270.98	Jimmycomelately Cr Bridge	17.0285	2004	6.46	1,282,482
OL	990370	US 101	359.6	Schneider Cr	14.0009	2004	7.21	
SW	992311	US 101	53.56	Old Mill Pond Cr	24	2004	0.39	
NC	990228	SR 20	181.34	Little Boulder Cr Culvert Replacement	48.1400	2005	3.14	567,336
NC	992058	SR 262	13.19	Irrigation Ditch to Potholes Reservoir	41	2005	6.84	
NW	991576	SR 18	18.19	Taylor Cr	08.0326	2005	1.06	
NW	990426	SR 18	18.43	Taylor Cr	08.0326	2005	1.02	
NW	991821	SR 92	0.47	Stevens Cr Culvert Replacement	07.0147	2005	1.29	634,398
NW	991620	SR 161	33.9	EF Hylebos Cr tributary	10.0016A	2005	1.33	
NW	992374	SR 522	18.44	Evans Cr tributary	07.0211	2005	1.67	

Table 2. (Continued)

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
NW	990016	SR 522	18.77	unnamed trib to unnamed trib	07	2005	0.23	
NW	102 N171	SR 527	7.38	Mill Cr	08.0070	2005	0.70	
NW	993087	SR 527	9.33	Penny Cr tributary	08	2005	0.12	
NW	995582	SR 542	45.51	Happy Valley Creek - NF Nooksack tributary	01	2005	0.10	
OL	990384	SR 106	0.85	Skobob Cr Bridge	16.0004	2005	0.89	1,731,000
OL	991636	SR 706	8.02	Nisqually R tributary	11.0008A	2005	4.51	
OL	991227	SR 706	9.81	Nisqually R tributary	11.0222	2005	0.21	
OL	991275	US 101	130.6	Ten O'Clock Cr tributary	21	2005	0.15	
EA	991471	SR 31	18.22	Three Mile Cr	62.0051	2006	4.77	
NC	980114	SR 20	205.84	Beaver Cr Culvert Replacement	48.0307	2006	50.11	700,915
NC	980124	SR 20	206.85	Frazer Cr Culvert Replacement	48.0309	2006	7.64	700,915
NC	990282	US 2	70.21	Mill Cr Culvert Replacement	45.0956	2006	7.18	1,674,411
NW	990376	I-405	19.12	Forbes Cr	08.0242	2006	2.93	
NW	995980	SR 9	0.97	Little Bear Cr tributary	08	2006	0.31	
NW	990316	SR 9	1.16	Cutthroat Cr	08.0083	2006	1.74	
NW	370220	SR 9	96.1	Easterbrook Cr	01.0686	2006	0.47	
NW	370219	SR 9	96.6	Bone Cr	01.0685	2006	2.27	
NW	08.0320 1.30	SR 18	16.94	Downs Cr - culvert replacement 2006; fishway rebuild 2008	08.0320	2006	2.42	
NW	995979	SR 20	14.65	Crockett Lk	06.0053	2006	1.78	
OL	990714	SR 112	24.91	Unnamed to Pysht R Culvert Replacement	19.0113K	2006	1.00	647,773
OL	990713	SR 112	54.35	Bear Cr Culvert Replacement	19.0014	2006	2.32	666,151
OL	990998	SR 305	11.62	SF Dogfish Cr	15	2006	0 ⁵	
OL	991853	SR 305	12.1	SF Dogfish Cr	15	2006	0 ⁵	
OL	996943	SR 305	12.16	SF Dogfish Cr	15	2006	0 ⁵	
OL	991854	SR 305	12.29	SF Dogfish Cr	15	2006	0 ⁵	
OL	15.0285 H 0.50	SR 305	12.34	SF Dogfish Cr	15	2006	0.99	
SW	992223	SR 142	13.4	Snyder Canyon Cr Fishway Tune up	30.0018	2006	3.89	0 ⁶
SW	30.0068 0.40	SR 142	20.2	Bowman Cr Bridge	30.0068	2006	22.79	1,495,495
EA	995837	SR 270	4.29	Paradise Cr tributary	34	2007	4.62	
EA	999625	SR 270	9.08	Paradise Cr tributary	34	2007	1.61	
NC	994035	SR 20	278.6	Bonaparte Cr	49.0246	2007	10.99	
NC	995038	US 2	57.8	Tye R tributary	07	2007	0.13	
NW	993090	I-5	182.73	Swamp Cr Fishway	08.0059	2007	6.69	433,648
NW	08.0059 7.00	I-405	29.75	Swamp Cr Fishway	08.0059	2007	0.39	436,324
NW	07.0148 1.30	SR 92	1.93	Catherine Cr Fishway	07.0148	2007	4.55	377,749
NW	996459	SR 524	13.05	Whistle Cr	08	2007	0.16	
NW	990578	SR 542	28.3	Boulder Cr tributary	01.0425	2007	0.35	
NW	981788	SR 548	6.35	Terrell Cr	01.0089	2007	4.26	
OL	991566	SR 303	5.6	Steele Cr	15.0274	2007	1.99	
OL	990122	SR 307	0.07	Dogfish Cr	15.0286	2007	4.32	
SC	990988	SR 24	1.07	Blue Sl	37	2007	2.30	
NW	991817	SR 9	31.61	Bryant Cr tributary	05	2008	0.48	
NW	FD41	SR 20	44.74	Meadow Cr	03	2008	5.10	
NW	995209	SR 96	3.96	unnamed trib to unnamed trib	07	2008	0.04	
NW	991641	SR 524	9.1	Filbert Cr	08	2008	0.71	
NW	991109	SR 539	2.06	Spring Cr tributary	01.0553	2008	0.24	
NW	990112	SR 539	4.3	Deer Cr	01.0165	2008	4.73	
SC	999499	US 12	319.35	Touchet R	32	2008	0 ⁷	
SW	994652	I-5	11	Gee Cr tributary	27.0168A	2008	1.28	
NW	991751	SR 531	3.8	Cougar Cr	05.0041	2009	0.48	
NW	990046	SR 542	28.01	Bruce Cr	01	2009	1.86	
NW	990023	SR 542	28.74	Baptist Camp Cr Culvert Replacement	01.0433	2009	0.32	495,103
NW	991184	SR 900	20.09	Clay Cr	08.0172	2009	0.12	
NW	991723	SR 900	20.34	Tibbetts Cr tributary	08.0171	2009	0.40	

Table 2. (Continued)

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
OL	998155	SR 16	20.06	Burley Cr tributary	15	2009	0.11	
OL	993576	SR 16	20.2	Burley Cr tributary	15	2009	0.12	
OL	992196	SR 104	12.7	Unnamed tributary to Squamish Harbor Culvert Replacement	17.0185	2009	1.13	1,475,868
OL	991244	SR 106	2.95	Unnamed tributary to Skokomish R Culvert Replacement	16.0002	2009	0.27	1,270,093
OL	991908	US 101	76.48	Mosquito Cr Culvert Replacement	24.0137	2009	2.21	1,357,943
SW	994286	I-5	74.05	Berwick Cr	23.0081	2009	7.19	
SW	992234	SR 122	4.99	Unnamed tributary to Mayfield Lake Culvert Replacement	26	2009	1.15	385,839
EA	997498	US 2	296.35	Deadman Cr	55.0051	2010	57.29	
NW	991060	SR 542	16.07	Nooksack R tributary	01	2010	0.12	
NW	990606	SR 542	38.98	Chain-up Cr Bridge	01	2010	0.17	1,289,251
OL	990709	SR 305	9.6	Unnamed tributary to Liberty Bay Culvert Replacement	15.0291	2010	1.74	2,887,452
OL	991742	SR 305	9.86	Bjorgen Cr Culvert Replacement	15.0290	2010	0.94	3,546,564
OL	991252	US 101	335.02	Hood Canal tributary	16.0218	2010	0.13	
SW	931450	SR 105	24.26	Seastrand Cr tributary	24	2010	0 ⁸	
SW	993139	SR 105	24.42	Seastrand Cr tributary	24	2010	0 ⁸	
SW	992821	US 101	3.3	Columbia R tributary	24	2010	0.87	
NW	AR11	SR 20	75.75	Red Cabin Cr Bridge	3.0343	2011	8.70	3,610,665
NW	994459	SR 520	4.48	Lake Washington tributary	8.0257	2011	1.49	
NW	998987	SR 520	4.81	Lake Washington tributary	08	2011	0.62	
NW	994119	SR 520	5.81	Yarrow Cr tributary	08	2011	0.32	
NW	990429	SR 548	4.67	Terrell Cr Culvert Replacement	01.0089	2011	7.03	1,569,358
NW	07.0939	0.40 US 2	23.08	Wagley's Cr Dam Removal	07.0939	2011	9.39	726,441
OL	999532	I-5	85.81	Dry Cr tributary	23	2011	0.99	
OL	992493	US 101	68.99	Tributary to Lower Salmon Cr Culvert	24.0106	2011	2.86	1,505,251
OL	990729	US 101	100.9	Tributary to S Branch Big Cr Culvert Replacement	22.0059	2011	0.75	845,786
OL	990032	US 101	102.14	Tributary to S Branch Big Cr Culvert Replacement	22.0059	2011	2.52	1,062,966
SW	990307	SR 105	16.57	Norris Slough Bridge	24	2011	1.55	3,023,493
EA	990096	SR 21	172.85	Curlew Cr	60.0288	2012	14.86	
NW	08.0183	1.60 I-90	18.83	EF Issaquah Cr Culvert Replacement	08.0183	2012	6.88	3,337,235
NW	931684	SR 9	2.65	Great Dane Cr tributary	08	2012	0.12	
NW	991486	SR 167	25.65	Panther Cr ³	9.0006	2012	3.72	
NW	994234	SR 520	5.95	Yarrow Cr	08.0252	2012	3.99	
NW	994227	SR 520	5.95	Yarrow Cr	08.0252	2012	0 ⁴	
NW	991736	SR 520	6.04	Yarrow Cr	8.0252	2012	0 ⁴	
NW	990151	SR 530	42.99	Fortson Cr Culvert Replacement	05.0254	2012	0.64	1,852,338
OL	991730	SR 112	25.6	Unnamed tributary to Pysht R Culvert	19	2012	2.08	996,662
OL	990304	SR 112	47.1	Nelson Cr Culvert	19.0032	2012	2.91	2,031,115
SW	994301	I-5	81.77	China Cr Fishway	23.0870	2012	5.15	
SW	990052	US 97	21.35	Butler Cr Bridge	30.0140	2012	13.71	3,634,545
EA	990362	SR 21	133.6	S. Nanamkin Cr	52.0125	2013	15.97	
NC	991849	US 2	88.54	Skinney Cr	45.0701	2013	0.45	
NW	991036	I-5	255.40	Squalicum Cr	01.0552	2013	18.69	1,516,068
NW	991448	SR 9	67.33	NP Cr Culvert Replacement	3.0078	2013	1.31	1,220,015
NW	994389	SR 11	20.42	Padden Cr	01.0622	2013	7.20	2,899,049
NW	994449	SR 520	6.03	Yarrow Cr	8.0252	2013	0 ⁴	
NW	994705	SR 520	6.44	SF Yarrow Cr	08	2013	0 ⁴	
OL	990297	SR 7	41.17	Muck Cr Culvert Replacement	11.0018	2013	5.21	2,065,841
OL	991246	SR 106	13.50	Twano Falls Cr Culvert Replacement	14.0132	2013	2.81	2,864,719
OL	993048	SR 107	0.76	Little North R tributary	24	2013	0.01	
OL	990092	SR 112	57.61	Coville Cr Culvert Replacement	19.0001	2013	9.76	1,754,881
OL	991215	SR 162	4.82	Ball Cr	10.0405	2013	1.54	

Table 2. (Continued)

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
SC	992942	I-90	56.81	Rocky Run Cr	39.1867A	2013	0.16	
SW	993138	SR 105	24.39	Seastrand Cr	24.0003	2013	1.38	
SW	932550	SR 142	23.66	Little Klickitat R tributary	30	2013	1.16	
SW	992228	US 12	115.29	Cowlitz R tributary	26.1030	2013	0.55	
NW	932370	SR 410	31.12	Scatter Cr	10.0073	2014	16.71	
NW	994236	SR 520	6.19	Yarrow Cr	8.0252	2014	0 ⁴	
NW	994704	SR 520	6.40	unnamed to Yarrow Cr	8	2014	0 ⁴	
NW	994237	SR 520	6.26	Yarrow Cr	8.0252	2014	0 ⁴	
NW	994238	SR 520	6.27	Yarrow Cr	8.0252	2014	0 ⁴	
NW	994128	SR 522	21.95	Skykomish R tributary	7.0814	2014	0.83	
NW	994125	SR 522	21.97	Skykomish R tributary	7.0814	2014	0.07	
NW	995404	SR 530	36.83	NF Stillaguamish R tributary	05	2014	0.04	
NW	991169	SR 530	36.9	NF Stillaguamish R tributary	05	2014	0 ⁸	
NW	991170	SR 530	37.58	NF Stillaguamish R tributary	05	2014	0 ⁸	
NW	990359	SR 530	37.95	Rowan II Cr	05.0220A	2014	0 ⁹	
NW	991171	SR 530	37.96	NF Stillaguamish R tributary	05	2014	0 ⁹	
NW	995405	SR 530	38.13	NF Stillaguamish R tributary	05	2014	0 ⁹	
OL	15.0229	0.10 SR 3	40.96	Chico Cr - temporary weirs inside the box culvert	15.0229	2014	pending ¹⁰	326,100
OL	990555	US 101	259.79	Owl Cr	18	2014	2.23	
NW	991120	SR 9	42.36	Lake Cr Bridge	03.0227	2015	10.22	2,444,365
NW	991210	SR 99	6.86	WF Hylebos Cr ³	10.0014	2015	2.09	2,639,948
NW	991718	SR 203	14.55	Coe Clemons Cr Culvert Replacement	07	2015	1.45	3,215,200
NW	08.0052	0.10 SR 522	5.76	Lyon Cr Culvert Replacement	08.0052	2015	9.51	1,600,001
NW	01.0228	4.80 SR 542	6.55	Anderson Cr Bridge ³	01.0228	2015	13.61	8,029,094
SC	995878	SR 129	5.78	Rattlesnake Cr Culvert Replacement	35.2314	2015	8.97	1,038,260
SW	991374	SR 4	3.1	Petes Cr	24.0572	2015	7.09	
SW	931100	SR 4	33.94	Unnamed trib to Elochoman Slough Culvert Replacement	25	2015	0.19	1,506,146
SW	990818	SR 4	34.1	Unnamed trib to Elochoman Slough Culvert Replacement	25	2015	1.68	1,738,124
SW	990283	SR 502	5.13	Mill Cr	28.0079	2015	2.79	
NW	930179	SR 167	11.43	unnamed trib to Milwaukee Canal	10	2016	1.44	
NW	996928	SR 522	9.6	Horse Creek	08	2016	1.64	
NW	990624	SR 532	9.75	Secret Creek	05.0065	2016	2.84	3,278,072
NW	991621	SR 542	24.9	High Creek	01	2016	2.41	2,118,192
NW	996155	SR 548	11.19	unnamed trib to Drayton Harbor	01.0044	2016	2.02	934,932
OLY	996735	SR 3	26.13	unnamed trib to Mindy Creek	15	2016	0.81	
OLY	996753	SR 16 EB	28.1	Anderson Creek	15.0211	2016	5.77	0 ⁶
OLY	990017	SR 16 WB	28.1	Anderson Creek	15.0211	2016	0.00	6,745,035
OLY	992205	SR 104	22.47	Grovers Creek	15.0299	2016	3.23	1,504,836
OLY	14.0021	0.30 SR 108	11.9	Little Skookum Creek	14.0021	2016	3.37	2,674,585
OLY	990205	SR 112	5.17	Jansen Creek	19.0228	2016	3.55	2,602,158
OLY	990214	SR 112	33.21	Joe Creek	19.0109	2016	4.45	1,949,017
OLY	990144	SR 112	48.49	Field Creek ³	19.0026	2016	5.55	196,019
OLY	990962	SR 121	4.04	Blooms Ditch	23.0684	2016	3.07	2,556,888
OLY	343040	SR 121	4.1	unnamed trib to Blooms Ditch	23	2016	0.04	0 ⁶
OLY	990972	SR 161	12.85	South Creek	11.0028	2016	23.83	1,634,328
OLY	105 R050320a	SR 167	10.8	Jovita Creek ³	10.0032	2016	2.53	
OLY	990123	SR 307	0.49	Dogfish Creek	15.0285	2016	4.90	1,366,090
OLY	992002	SR 307	4.62	Gamble Creek	15.0356	2016	6.22	1,867,216
OLY	991049	SR 507	36.35	Lacamas Creek	11.0022	2016	15.09	2,139,771
OLY	20.0312	0.60 US 101	197.1	Swanson Creek	20.0312	2016	4.13	2,111,082
EA	990267	US 395	249.98	Matsen Creek	60.0056	2017	0.90	
NW	03.0181	0.50 I-5	219.41	Fisher Creek ³	03.0181	2017	17.11	8,700,106
NW	996475	I-90	17	Unnamed to NF Issaquah Creek	08.0000	2017	0.22	7,381,876

Table 2. (Continued)

WSDOT Region	Site Id	Road	MP	Stream	WRIA	Year Fixed	Potential Lineal Gain ¹ (mi)	Project Cost \$ ²
NW	996963	I-90	17	NF Issaquah Creek	08.0181	2017	0.86	0 ⁶
NW	934151	I-90	17.06	Unnamed to NF Issaquah Creek	08	2017	0.09	0 ⁶
NW	995181	SR 203	14.1	Thayer Creek	07	2017	0.78	
NW	991058	SR 531	8.65	Edgecomb Creek	07	2017	0.06	0 ⁶
NW	991059	SR 531	8.71	Edgecomb Creek ³	7	2017	1.76	3,101,023
NW	05.0018	2.00 SR 532	6.14	Church Creek ³	05.0018	2017	12.73	5,862,823
NW	991842	SR 900	15.86	Green Creek	08.0000	2017	1.34	1,779,625
OLY	991660	SR 112	52.9	Nordstrom Creek	19.0011	2017	3.02	2,313,873
OLY	18.0021	5.40 US 101	260.93	Matriotti Creek ³	18.0021	2017	5.02	2,558,126
SC	999342	I-90	59.37	Resort Creek	39.1861	2017	0.84	
SW	991409	SR 401	0.84	Megler Creek	24.0049	2017	0.80	
NC	990413	US 97	159.24	Swauk Creek	39.1157	2018	4.36	3,382,975
NC	992763	US 97	165.54	unnamed tributary to Tronsen Creek	45	2018	0.43	994,779
NW	991122	SR 9	48	Gribble Creek ³	03	2018	2.67	3,138,507
NW	990233	SR 92	2.73	Little Pilchuck Creek	07.0146	2018	28.93	6,956,549
NW	102 L062	SR 202	0.10	Little Bear Creek	08.0080	2018	21.41	10,380,589
NW	991717	SR 203	4.98	Langlois Creek	07	2018	5.39	2,009,540
NW	102 L020	SR 524	12.44	Great Dane Creek	08.0084	2018	4.47	1,575,424
NW	990187	SR 542	32.00	Hedrick Creek	01.0463	2018	0.34	7,017,829
OLY	22.0507	0.10 SR 8	5.00	MF Wildcat Creek	22.0507	2018	18.64	7,538,091
OLY	990133	SR 8	6.30	EF Wildcat Creek	22.0503A	2018	13.62	9,248,894
OLY	991739	SR 112	7.35	Olsen Creek	19.0227	2018	3.62	3,431,945
OLY	994791	US 12	9.04	unnamed tributary to Wynoochee River	22	2018	1.65	4,898,162
SC	992948	I-90	60.60	Townsend Creek	39	2018	1.63	
SC	992950	I-90	61.35	Price Creek	39.1840	2018	1.04	
SW	991634	SR 504	17.00	Wooster Creek	26.0320	2018	1.76	3,701,857

**Totals: 1154.50 mi
1857.98 km**

Shaded - injunction barrier corrections

- 1 - For watersheds with multiple corrections, lineal gain is typically shown for the site highest in the watershed and incremental gain is shown for lower sites.
- 2 - Project Costs only available for projects completed with dedicated I4 funds.
- 3 - Previous correction reverted to a barrier; barrier re-corrected.
- 4 - Lineal gain represented by site 994234 (2012).
- 5 - Lineal gain represented by site 15.0285 H 0.50 (2006).
- 6 - Project Costs included in a related site's contract.
- 7 - Bridge repair and fish passage improvement in 2008, but still a barrier due to outfall drops.
- 8 - Amount of habitat gain unknown at this time.
- 9 - Amount of habitat gain unknown; site not previously documented as a barrier before emergency situation.
- 10 - Pending: interim fix; potential gain will be reported after the culvert is replaced by a bridge.

2019 Fish Passage Projects Planned

Eight barrier correction projects are scheduled for completion in 2019 (Figure 35, Table 3). The eight projects will open up an estimated 20.04 miles (32.25 kilometers) of potential upstream habitat. Seven of the barrier corrections are stand-alone projects funded by the WSDOT improvement subprogram I4. One barrier on SR 129 Buford Creek will be corrected in partnership with the Nez Perce Tribe, with grant

funding from the Salmon Recovery Funding Board and the Brian Abbott Fish Barrier Removal Board. Seven of the eight barrier corrections planned for 2019 will correct injunction barriers.

Figure 36. WSDOT fish passage projects scheduled for completion in 2019

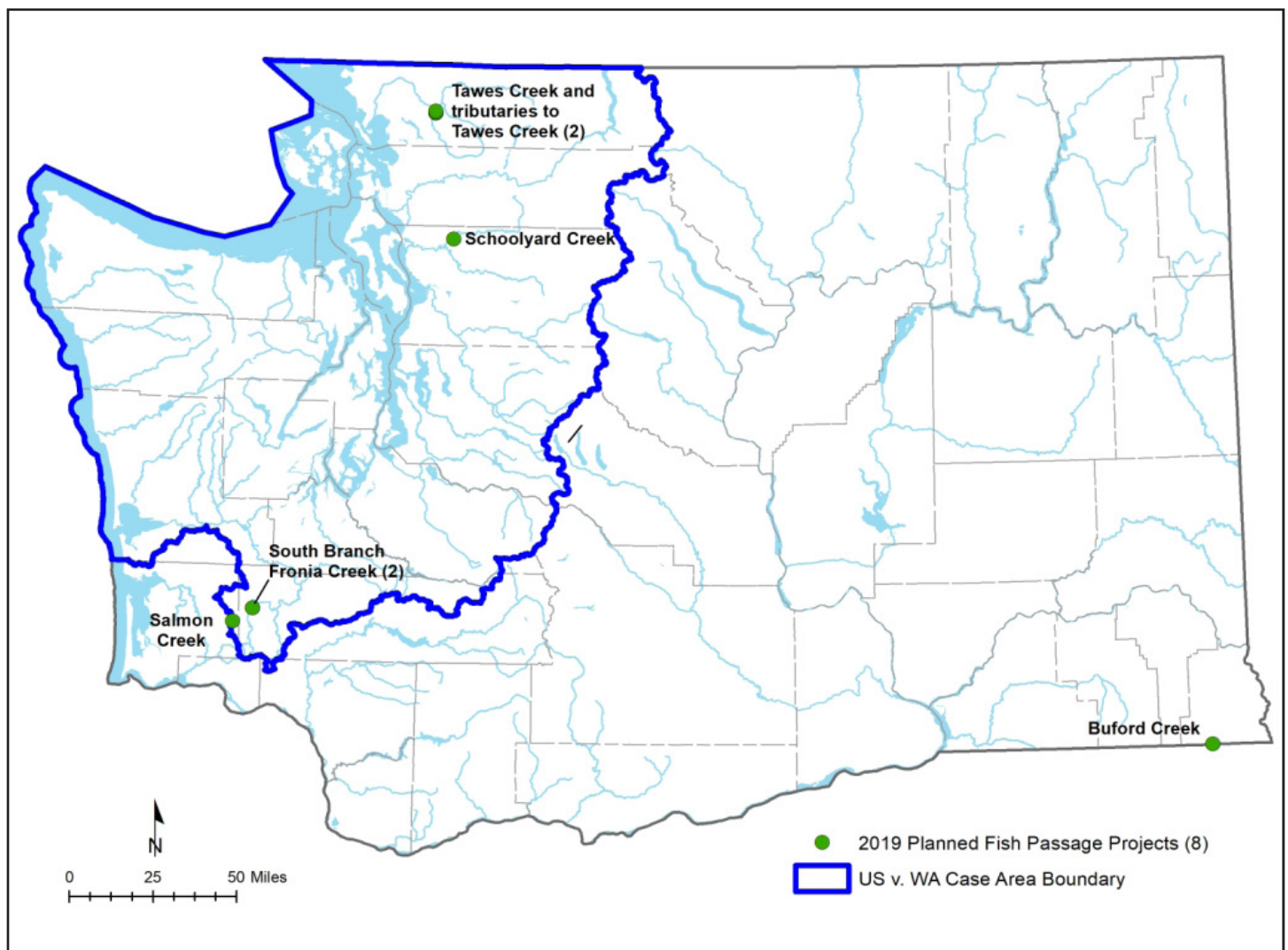


Table 3. Fish Passage Projects Planned for Completion in 2019

Site ID	WSDOT Region	Road	MP	Stream	WRIA	Lineal Gain ² (mi)	Incremental Gain ² (mi)	Funding
992349 ¹	NW	SR 9	77.36	Tributary to Tawes Creek	1	0.59	0.59	I4
992350 ¹	NW	SR 9	77.43	Tributary to Tawes Creek	1	2.73	2.73	I4
992356 ¹	NW	SR 9	77.94	Tawes Creek	1	2.19	2.19	I4
991160 ¹	NW	SR 530	25.94	Schoolyard Creek	5	3.53	3.53	I4
990735 ¹	SW	SR 6	22.64	Salmon Creek	23	3.56	3.56	I4
990744 ¹	SW	SR 6	31.06	South Branch Fronia Creek	23	3.48	3.48	I4
990746 ¹	SW	SR 6	31.08	South Branch Fronia Creek	23	3.48	0.00 ³	I4
990048	SC	SR 129	0.90	Buford Creek	35	3.96	3.96	G

Total 23.52 20.04 mi
37.85 32.25 km

¹ Barrier culvert applicable to the Federal Court Injunction scheduled for completion in 2019.

² Lineal gain represents the amount of potential fish habitat upstream of a corrected barrier. Incremental habitat gain is reported for sites having other WSDOT barriers located upstream. Incremental habitat gain is the amount of potential fish habitat upstream to the next WSDOT barrier.

³ Site with WSDOT barrier(s) upstream

Funding Codes:

I4 = Improvement

G = Grants

Project Planning

WSDOT Barrier Corrections and Planning Strategy

WSDOT corrects fish passage barriers mainly through stand-alone projects or as part of larger transportation projects.

- Stand-alone correction projects address some of the highest priority barriers.
- Barriers corrected as part of larger safety or mobility projects allow WSDOT to save time and money.

Stand-alone Projects

These “dedicated correction” projects are part of the WSDOT Environmental Retrofit Subprogram (I4). The sole purpose of these projects is to correct fish passage barriers. As part of managing WSDOT’s barrier correction program for efficient use of state resources, decisions about project prioritization may involve factors such as:

- amount of habitat blocked and habitat quality,
- tribal input,
- project cost in relation to program funding,
- future safety/mobility projects which may address the barrier,
- multiple WSDOT barriers in a watershed,
- project grouping efficiencies for combined construction or traffic detour management,
- structure condition/maintenance issues,
- severity of the fish passage barrier (e.g. total barrier vs. partial barrier),
- notably complex design challenges (e.g. adjacent barriers, complex right of way issues, unstable stream conditions, etc.),

- partnership opportunities with local agencies, Tribes, enhancement groups, and other landowners,
- the presence and number of Endangered Species Act (ESA) listed species, and
- permitting constraints.

WSDOT prioritizes known barriers statewide for correction. The prioritization process aims to select the projects that efficiently provide benefits for anadromous and resident fish species. Mainly barriers with significant amount of potential habitat gain are prioritized for correction as stand-alone fish passage restoration projects in the I4 budget.

WSDOT Transportation Improvement Projects

WSDOT fish passage barrier correction can also occur by integrating the barrier project with road construction, including safety and mobility projects. It is a cost-effective way to accelerate barrier correction and reduce mobilization costs. WSDOT integrates fish passage barrier corrections into planned WSDOT transportation improvement projects whenever possible. All fish passage barriers within an upcoming transportation project are considered for correction, including barriers with limited habitat gain that are not considered for correction with dedicated funding. WSDOT works closely with WDFW to identify all fish passage barriers within a project’s boundaries.

Fish Passage Barrier Inventory

Fish Passage Inventory Updates

WDFW has inspected 7,401 water crossings along 7,052 miles of state highways. WDFW completed the initial inventory in October of 2007. The inspected crossings include culverts as well as other features associated with WSDOT highways and rights of way, such as streambed controls and dams. Culvert conditions can change over time and reassessment of barrier and non-barriers is an ongoing effort. WSDOT also directs WDFW to reassess water crossings in specific locations in advance of transportation improvement projects in order to provide project planners with the most up-to-date information about WSDOT's fish passage sites.

- Of the 7,401 water crossings, 3,855 were identified as crossings over fish bearing waters.
- Approximately 53% (2,052) of the examined fish bearing crossings were identified as barriers (Table 4). Out of the 2,052* barriers, 1,036 are total barriers to fish passage, 976 provide partial fish passage, while 40 barriers have an unknown percent passability.

- One hundred and seventy-one crossings require further analysis to determine fish passage barrier status.
- Barriers with a significant habitat gain** (1,523) may be prioritized for correction with dedicated funding.
- Seventy-nine fish passage barrier crossings require verification of significant habitat gain.

*The number of fish passage barriers is a dynamic value that changes as the on-going inventory takes place. As previously undetected culverts are inventoried, the number of crossings (and possibly fish passage barriers) may increase.

**A significant reach of habitat is defined as a section of stream having at least 200 linear meters of usable habitat without a gradient or natural barrier, both upstream and downstream of the fish passage feature.

Table 4. Fish Passage Barriers Statewide

Total Number of Fish Barriers	Fish Passage Barriers			Unknown Barrier Status	Barriers with Significant Habitat Gain	Barriers with Limited Habitat Gain ¹	Barriers with Habitat Threshold Gain Not Determined	Barriers Fixed ²
2052	Total Barriers (0% Passable)	Partial Barriers (33% or 67% Passable)	Percent Passable Unknown	171	1523	450	79	345
	1036	976	40					

Based on WSDOT Fish Passage Inventory as of June 3, 2019.

¹ Barriers with less than 200 m potential habitat gain.

² Three hundred and forty-five WSDOT fish passage barriers have been reported as replaced or retrofitted for fish passage; however, some of these require additional work to meet current fish passage criteria.

Regional Statistics

WSDOT has six geographic management regions: Northwest, North Central, Olympic, Southwest, South

Central, and Eastern (Figure 36). A summary of the fish passage barriers within the six regions is shown in Table 5. For a complete list of fish passage barriers refer to Appendix I.

Figure 37. WSDOT Regions

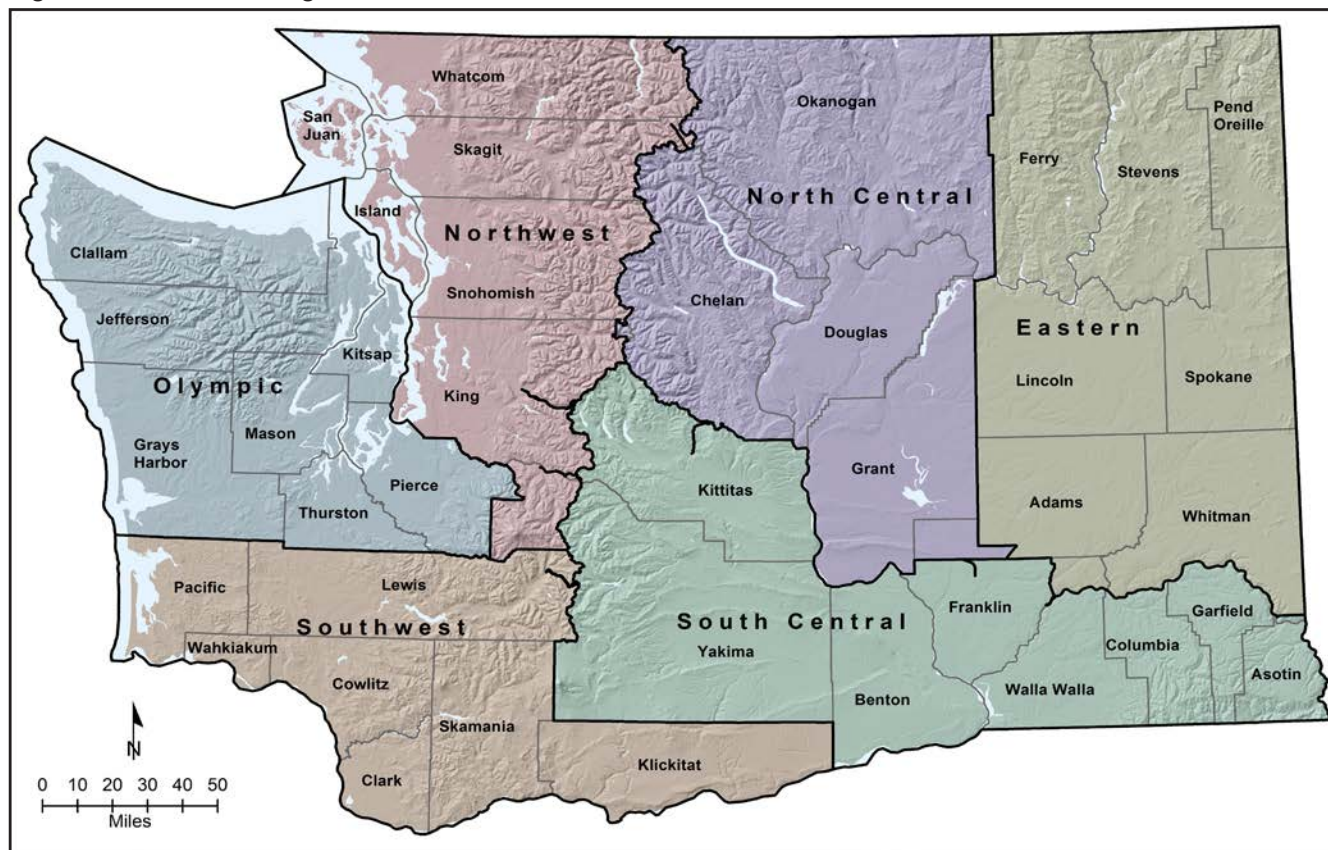


Table 5. Fish Passage Barrier Assessment Summarized Across Six WSDOT Regions

WSDOT Region	Fish-bearing Water Crossings	Fish Passage Barriers	Barriers with Significant Habitat Gain	Barriers with Limited Habitat Gain ¹	Barriers with Habitat Threshold Gain Not Determined	Barriers Fixed ²
Northwest	1141	635	437	162	36	161
North Central	240	134	96	34	4	17
Olympic	1069	664	500	148	16	101
Southwest	723	358	267	72	19	39
South Central	273	85	67	15	3	11
Eastern	409	176	156	19	1	16
Totals	3855	2052	1523	450	79	345

Based on WSDOT Fish Passage Inventory as of June 3, 2019.

¹ Barriers with less than 200 m potential habitat gain.

² Three hundred and forty-five WSDOT fish passage barriers have been reported as replaced or retrofitted for fish passage; however, some of these require additional work to meet current fish passage criteria.

U.S. v. WA List of WSDOT Case Area Barrier Culverts

A list of culverts blocking salmon or steelhead passage within the case area was filed on September 27, 2013, containing 1,014 barriers, including 847 with a significant habitat gain and 167 with a limited habitat gain.

As of June 3, 2019, WSDOT has 1,001 culvert barriers relevant to the U.S. v. WA case - 817 with significant habitat upstream (≥ 200 meters) and 184 with a limited habitat gain (< 200 meters).

The List of WSDOT Case Area Barrier Culverts (Case 2:01-sp-00001-RSM Document 779-1) is updated as WSDOT learns new information about culverts within the case area and the disposition of culverts may change. The injunction requires the state to re-evaluate non-barrier culverts once every ten years to determine whether they remain passable. Newly identified barriers are discovered as part of this re-inventory work, as the culvert conditions change over time and become barriers.

Updates to the September 2013 List of WSDOT Case Area Barrier Culverts:

- 66 barriers have been corrected and are no longer barriers*,

- 30 culverts are on resident-fish streams, not containing steelhead or salmon,
- 9 barriers are on streams determined to be non-fish bearing,
- 4 barriers are equipped with tide gates,
- 1 barrier was a duplicate record in WDFW's database,
- 26 barriers were re-evaluated as fish passable,
- 12 barriers were incorrectly assigned to WSDOT ownership, and
- 135 new injunction relevant barrier culverts were identified.

Appendix II lists the barrier culverts relevant to the injunction as of June 3, 2019. Appendix III lists the updates to the September 2013 List of WSDOT Case Area Barrier Culverts.

* This number includes the barrier culvert on Horse Creek that was replaced in 2016 by the City of Bothell but not reported to WSDOT until 2019.

Monitoring

Monitoring Activities

In September 2015, as part of the U.S. v. WA culvert injunction, state agencies and Tribal nations agreed upon and finalized a set of Monitoring Implementation Guidelines. Those Guidelines are the basis of WSDOT's Fish Passage Monitoring Plan. Some elements of the Monitoring Plan can be applied to all statewide fish passage projects, in addition to those within the case area. Some projects have specific monitoring requirements as part of a state or federal permit. The monitoring plan is based on the agreed upon guidelines yet provides protocols that can be broadly applied to ensure a consistent and efficient process.

Fish passage corrections are monitored at the following time periods:

Post-Construction Compliance Inspection - WSDOT evaluates all fish passage projects to ensure they conform to permits and design plans. Sites are also evaluated for their ability to pass fish using WDFW barrier assessment methods.

Over-Winter Inspection – WSDOT inspects sites corrected under the injunction within the first year following construction after peak winter flows subside to evaluate the impact of high and low seasonal flows on fish passage at the new structure.

Long-Term Evaluations - Sites corrected under the injunction are evaluated five and 10 years after construction to determine if they continue to provide fish passage and to determine if the structures conform to the fish passage standards under which they were constructed.

Actions Resulting from the Monitoring Process

Actions are determined on a case-by-case basis and involve one of the following determinations:

No Action Needed - The structure is providing fish passage and stream function. The responses to the monitoring standards are within the expected norms.

Increased Monitoring - The structure is providing fish passage and stream function. Some of the responses to the monitoring standards are outside the expected norms. This action is taken when stream function may naturally correct the substandard responses.

Repair - The structure is in danger of losing fish passage or stream function, or has lost fish passage but can be restored by activities within the scope of maintenance work.

Modifications - The structure has lost fish passage and stream function but can be restored with a modification to the project site. Modifications are beyond maintenance as they change a portion of the original design elements. Any modification will be monitored to ensure that it functions as designed.

Add to newly-identified barrier list and repair- The structure has lost fish passage and stream function and can only be repaired through complete replacement of the structure.

Monitoring Results

During 2018, WSDOT evaluated 49 sites under the Monitoring Plan: 18 Post-Construction Compliance Inspections, 11 Over-Winter Inspections, and seven Long-Term Evaluations. The remaining 13 site visits were previously categorized as needing Increased Monitoring. All Post-Construction Inspections determined the projects met fish passage standards and were constructed according to the permitted designs. One of the sites was flagged for annual re-visits to monitor stream channel performance during low flow conditions. For the group receiving Over-Winter Inspections, two sites were flagged for channel modifications to correct subsurface flow, three others were flagged to receive annual monitoring for a variety of reasons, such as tracking channel regrade, summer drying, and a developing water surface drop over a grade control log upstream. In the Long-Term Evaluation group, all projects remained fish passable – one required removal of rip rap that had fallen into the creek and a second was flagged for annual re-visits to monitor

aggradation of sediment in the culvert. For the 13 sites receiving Increased Monitoring evaluations, five sites will continue to receive annual monitoring visits and the other eight sites were no longer considered a concern and reverted to the regular monitoring schedule.

Post-Project Evaluation for Fish Presence

Adult spawner surveys determine species presence or absence above and below a newly completed fish passage project. Typically, the surveys are conducted 500 meters downstream and upstream of the project. The surveys may be shorter if the distance to a confluence with a larger body of water downstream is less than 500 meters or if there is a natural barrier upstream within the 500 meters. If there is no spawning habitat within 500 meters upstream or downstream of the fish passage project, the survey may be relocated to where fish are likely to spawn.

Not all potential habitat may be utilized by salmonids immediately following a fish passage correction. In some cases, it may take years before the newly opened habitat is utilized to its full potential. Fish passage is only one of the many factors influencing fish production. Among the other factors are surface water diversions, pollution, hydropower, unfavorable ocean conditions, predation, harvest, and general habitat degradation or loss.

Appendix IV lists recent spawner surveys conducted by WDFW for 14 projects. In late 2018, WDFW conducted salmon spawner surveys on 13 streams where WSDOT recently completed fish passage projects. During those surveys, adult salmon or redds were detected upstream of six WSDOT fish passage projects. Adult salmon or redds were not detected upstream of the other eight sites surveyed. This could be due to other fish passage barriers located downstream, or poor visibility when conducting the stream surveys (for example, if the water was high or turbid).

Return of coho to Green Creek upstream of SR 900

Standing in Green Creek on a cold day in November 2018, a WDFW biologist is looking for spawning adult salmon. A neighbor stops by to ask what is happening and the pair fall into conversation about the recently replaced culvert under the highway. The neighbors were unsure about the benefits of the culvert project, as they had not observed salmon in Green Creek for the past thirty years. Sharing an optimistic viewpoint, the biologist replies that culverts are sized to mimic the creek, providing access to upstream habitat is key, and if salmon can come they will. It just takes time. A quick splash of water and a flash of red draws the attention of both. It's an adult coho salmon returning to its natal stream to spawn. "Well, I'll be" is all that is said. It's all that needs to be said.

Welcome home.



Adult coho returning to Green Creek through a new stream-simulation culvert constructed in 2017 on SR 900 in King County. (Zach Moore and Panos Stratis, WDFW)

Fishway Inspections and Maintenance

In addition to culverts, WSDOT owns 150 fishways statewide. Regular inspections and maintenance are essential for the continued successful operation of fishways. Some of the fishways require frequent maintenance to ensure fish passage but are not fish passage barriers. WDFW biologists perform regular inspections of fishways in the spring. They document maintenance needs or fish passage deficiencies then notify WSDOT. A follow-up inspection, conducted in the fall, ensures that all the fish passage deficiencies were corrected and maintenance needs were met.

For 2019, WDFW inspected 92 fishways that were deemed passable to fish in 2018. Of these 92, two require maintenance to allow fish passage. WDFW also inspected an additional 27 fishways that require

replacement but with maintenance can afford some degree of passability. Of the 27, three fishways require some degree of maintenance to allow partial fish passage. Maintenance of the fishways includes removal of organic debris and sediment, repairing broken or missing baffles and other similar activities ensuring fish passage through fishways.

When fishways reach the end of their useful life and can no longer provide fish passage, they are put on the barrier list to be evaluated by biologists and engineers for a repair solution. Like the other fish passage barriers, barrier fishways are included in the scoping and prioritization process that will ultimately lead to repair or replacement.



Figure 38. An example of a durable and efficient fishway on SR 401 at milepost 8.8 for Cement Creek.



The results of the spring 2019 fishway inspections can be found in Appendix V.

Appendix I

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
995295	I-5	141.17	C	EF Hylebos Cr trib	10.0016	67	7.71	1.1	RND	PCC	0.61	0.61	16.4	0	1.34	1637	826	1522
995292	I-5	141.54	C	EF Hylebos Cr trib	10.0016	33	7	1.1	RND	PCC	1.22	1.22	107.8	0	1.22	1229	501	1021
995297	I-5	141.84	C	EF Hylebos Cr trib	10.0016	0	8.66	1.1	RND	OTH	0.91	0.91	178.4	0.09	2.2	558	83	375
995293	I-5	142.1	C	EF Hylebos Cr trib	10.0013	33	4.55	1.2	RND	PCC	0.76	0.76	77.5	0	0.9	201	39	91
995293	I-5	142.1	C	EF Hylebos Cr trib	10.0013	33	4.55	2.2	RND	PCC	0.46	0.46	77.5	0	0.74	201	39	91
992364	I-5	143.6	C	WF Hylebos Cr trib	10.0013	Unknown	10.45	1.1	RND	PCC	0.91	0.91	745	0		1478	1	2709
995299	I-5	143.75	C	WF Hylebos Cr trib	10.0013	33	8.56	1.1	RND	PCC	0.76	0.76	195.1	0	0.46	951	1	2308
995300	I-5	143.9	C	WF Hylebos Cr trib	10.0013	67	7.6	1.1	RND	OTH	0.73	0.73	68.1	0	-0.05	813	0	1143
933613	I-5	145.81	C	Bingaman Cr	09	0	16.3	1.1	RND	PCC	0.99	0.99	34.7	1.1		1261	0	5308
991031	I-5	145.93	C	Bingaman Cr	09	0	13.87	1.1	RND	PCC	0.76	0.76	100.3	0.02	6.9	1454	77	5573
996029	I-5	153.31	C	Green R trib	09.0036	0		1.1	RND	SPS	1.6	1.6	200	0.05	9	182		
995976	I-5	153.45	C	Green R trib	09.0033	0		1.1	RND	SPS	1.6	1.6	207.7	0.15	9.6			
996030	I-5	154.39	C	Gilliam Cr	09.0032	0	13.05	1.1	RND	PCC	1.37	1.37	631.8	0		2745	328	1380
998964	I-5	154.48	C	unnamed Green R trib trib	09	0		1.1	RND	PCC	0.91	0.91	191.8	1.2	3.7			
934547	I-5	172.28	C	SF Thornton Cr	08.0033	33		1.1	RND	PCC	0.91	0.91	232	0				
934543	I-5	172.38	C	SF Thornton Cr trib	08	0		1.1	RND	PCC	0.76	0.76	125	0				
994562	I-5	174.71	C	Thornton Cr	08.0030	33	20.7	1.2	RND	PCC	1.75	1.75	465	0	2	2987	324	19878
994562	I-5	174.71	C	Thornton Cr	08.0030	33	20.7	2.2	RND	PCC	1.75	1.75	465	0	2	2987	324	19878
994561	I-5	174.85	D	Thornton Cr trib	08	0	23.66									1131	189	11351
994842	I-5	175	C	Thornton Cr trib	08	0	18.4	1.1	RND	PCC	0.61	0.61	80	0		1304	135	8322
102 M048	I-5	177.85	C	McAleer Cr trib	08.0049	0	7.31	1.1	RND	CAL	0.91	0.91	36.8	0.68	6.53	354	519	208
102 M046	I-5	177.85	C	McAleer Cr	08.0049	33	33.99	1.1	RND	CST	1.68	1.68	85.4	0	1.05	6164	3304	34907
990273	I-5	177.93	C	McAleer Cr	08.0049	33	33.43	1.1	RND	CST	1.52	1.52	135.2	0	1.97	5961	3132	34751
934471	I-5	181.85	C	Goldie Cr	08.0062	0	11.9	1.1	RND	PCC	0.91	0.91		1.42		164	0	1454
996229	I-5	183.33	C	Swamp Cr trib	08	0		1.1	RND	PCC	0.3	0.3	144	0.17		48		
102 N218	I-5	186.93	C	North Cr trib	08.0070	33	3.14	1.1	RND	PCC	0.75	0.75		0.22		152	8	47
993091	I-5	187.64	C	Silver Lk trib	08	33	13.24	1.1	RND	PCC	0.91	0.91	25	0		1900	30	3206
993124	I-5	187.89	C	Silver Lk trib	08	33	13.03	1.1	RND	PCC	0.91	0.91	65.9	0.09	0.66	1718	18	3115
930252	I-5	187.93	C	Penny Cr trib	08	33	13.03	1.1	RND	PCC	0.91	0.91	77.9	0	1.08	1641	18	3115
995262	I-5	189.9	C	Wood Cr trib	07	0		1.1	RND	PCC	0.76	0.76	324.3	0.07	4	40		
993665	I-5	196.24	C	Snohomish R trib	07.0014	Unknown		1.1	RND	CST	0.76	0.76	68.8	0	0			
934672	I-5	196.78	C	Union Sl trib	07.0000	0		1.1	RND	CST	0.84	0.84	5.8	0	1.2			
996076	I-5	210.01	C	Stillaguamish R trib	05	0		1.1	RND	PCC	1.22	1.22	174.5	0	4.4			
990623	I-5	211.7	C	Secret Cr	05.0065	67	20.75	1.1	BOX	CPC	1.53	2.15	117.6	0.2	0.71	7376	4426	16511
992181	I-5	213.27	C	Pilchuck Cr trib	05.0065B	0	7.94	1.1	SQSH	CST	0.7	0.45	36.7	0.46	2.97	275	0	156
992182	I-5	213.27	C	Pilchuck Cr trib	05.0065C	0	10.29	1.1	SQSH	CST	0.7	0.45	37.2	0.37	3.28	982	392	880
991979	I-5	213.29	C	unnamed trib	05.0065C	0	10.29	1.1	RND	CST	0.61	0.61	62	0.15	4.5	916	392	880
992175	I-5	213.66	C	Secret Cr trib	05	33	6.02	1.1	RND	PCC	0.76	0.76	36	0.21	2.57	365	183	148
LP66	I-5	213.86	C	Secret Cr trib	05	33		1.1	RND	CST	0.48	0.48	11.4	0	0.44			
996077	I-5	214.38	C	WF Church Cr trib	05	0	8.63	1.1	RND	OTH	0.61	0.61	115.1	0.54	3.81	531	213	356
996454	I-5	214.65	C	WF Church Cr trib	05	0	10.77	1.1	RND	PCC	0.46	0.46	45.2	0		1046	213	867
996074	I-5	214.65	C	WF Church Cr trib	05	33	9.75	1.1	RND	CAL	0.61	0.61	44.7	0	4	1046	213	867
996071	I-5	214.73	C	WF Church Cr	05.0021	33	13.03	1.1	RND	CAL	0.61	0.61	74.7	0	1.67	1906	710	2767
996073	I-5	214.74	C	WF Church Cr	05.0021	33	13.16	1.1	RND	CST	0.76	0.76	47.9	0	1.52	2145	727	2883

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
995242	I-5	218	C	unnamed trib	03.0184	33	5.13	1.1	RND	OTH	1.07	1.07	182.9	0.1	0.7	1136	257	994
995221	I-5	218.01	C	unnamed trib	03	0	2.78	1.1	RND	OTH	0.61	0.61	121	0		153	71	57
991725	I-5	224.62	C	Maddox Cr	03.2966	67	14.65	1.1	RND	PCC	1.52	1.52	282	0	0.15	11487	4742	21317
CR122	I-5	225.24	C	Martha Washington Cr	03.2970	33	8.78	1.1	RND	CST	0.91	0.91	100	0		1448	4	1334
995227	I-5	234.65	C	Samish R trib	03	0		1.1	RND	PCC	0.76	0.76	41.8	0.35	6.1	40		
995228	I-5	235.65	C	Samish R trib	03	0		1.1	RND	CST	0.91	0.91	122	1.3	5.3	26		
995245	I-5	240.92	C	Friday Cr trib	03	0	6.62	1.1	RND	OTH	0.76	0.76	69.7	0.42	2.73	1283	422	927
995236	I-5	240.92	C	Friday Cr trib	03	33	5.91	1.1	RND	PCC	0.61	0.61	16.1	0.08	3.16	1116	391	878
995233	I-5	240.95	C	Friday Cr trib	03	0	6.55	1.1	RND	CST	0.61	0.61	13.7	0.19	6.11	1205	392	882
995232	I-5	240.95	C	Friday Cr trib	03	33	5.92	1.1	RND	PCC	0.61	0.61	22.3	0	1.66	1220	393	883
995234	I-5	240.95	C	Friday Cr trib	03	33	5.43	1.1	RND	PCC	0.61	0.61	19.8	0	0.86	1184	392	881
995235	I-5	240.95	C	Friday Cr trib	03	0	6.53	1.1	RND	CST	0.61	0.61	50.9	0.21	11.15	1132	391	878
995240	I-5	240.99	C	Friday Cr trib	03.0032	0	19.65	1.1	RND	CST	1.07	1.07	43.8	1.16	7.22	1882	675	16059
995241	I-5	241.03	C	Friday Cr trib	03.0032	67	14.73	1.1	RND	PCC	1.07	1.07	17.4	0	0.52	2048	712	16171
995238	I-5	241.03	C	Friday Cr trib	03.0032	0	19.66	1.1	RND	PCC	1.07	1.07	31.3	0	5.44	1961	699	16085
995239	I-5	241.03	EC	Friday Cr trib	03.0032	0	19.65									1937	683	16067
995246	I-5	241.1	C	unnamed Friday Cr trib trib	03.0031	0	10.76	1.1	RND	PCC	0.61	0.61	29.6	1.11	6.08	1408	726	1448
995259	I-5	241.1	C	unnamed Friday Cr trib trib	03.0031	0	10.76	1.1	RND	PCC	0.61	0.61	47	0	6.09	1358	720	1444
995249	I-5	242.03	C	Friday Cr trib	03	33		1.1	RND	CST	0.76	0.76	76.3	0	0.26			
370614	I-5	243.43	C	Samish Lk trib	03.0035	0	13.5	1.1	RND	PCC	1.07	1.07	104	0	4	853	206	1253
FR73	I-5	243.91	C	Samish Lk trib	03.0036	0	16.23	1.1	RND	CST	1.37	1.37	31.2	0.33	9.1	704	642	917
995250	I-5	243.96	C	Samish Lk trib	03.0036	0	16.23	1.1	RND	CST	1.45	1.45	59.2	0.31	4.4	704	642	917
990025	I-5	244.2	C, FI	Barnes Cr	03.0037	0	11.92	1.1	RND	CST	1.83	1.83	26.1		5.14	492	216	652
994501	I-5	244.2	C	Barnes Cr	03.0037	0	11.92	1.1	RND	PVC	1.52	1.52	24.5	0	6.25	559	248	705
FR75	I-5	245.76	C	Lake Cr	03.0042	0	14.23	1.2	RND	SPS	1.83	1.83	68.9	0.5	0.3	3387	1388	4477
FR75	I-5	245.76	C	Lake Cr	03.0042	0	14.23	2.2	RND	SPS	1.83	1.83	69.2	0.5	0.2	3387	1388	4477
995248	I-5	246	C	unnamed trib	03	67	5.21	1.1	RND	PCC	0.76	0.76	29.5	0	1.4	269	2	162
995247	I-5	246	C	unnamed trib	03	33	5.82	1.1	RND	PCC	0.76	0.76	21.5	0	2.7	207	0	125
995256	I-5	246.12	C	Lake Cr trib	03.0043	0	10.62	1.1	BOX	GPC	2.46	1.21	48.8	0.59	3.75	1898	422	1510
995255	I-5	246.22	C	Lake Cr trib	03.0043	0	9.81	1.1	BOX	GPC	1.56	1.22	16.6	0.8	3.6	1449	298	1128
995411	I-5	246.75	C, FI	Chuckanut Cr	01.0626	0	8.9	1.2	RND	PCC	1.52	1.52	106.4	0	2.9	1148	325	3015
995411	I-5	246.75	C, FI	Chuckanut Cr	01.0626	0	8.9	2.2	RND	OTH	1.42	1.61	106.3	0	3.1	1148	325	3015
994233	I-5	250.55	C	Padden Cr	01.0622	0	29.96	1.1	BOX	CPC	1.52	1.55	131.5	0.13	3.72		3206	28856
995699	I-5	251.36	C	Connelly Cr trib	01	0	4.57	1.1	RND	PCC	1.07	1.07	53.4	1.3	10.7	575	54	355
995705	I-5	251.83	C	Connelly Cr trib	01	0		1.1	RND	OTH	0.61	0.61	97.4	0	11.2	18		
992003	I-5	256	C	Spring Cr	01.0553	67	22.64	1.1	SQSH	SPA	2.87	2.01	28.3	0	1.72	9084	4469	17964
990022	I-5	256.28	C, FI	Baker Cr	01.0553	33	30.02	1.1	SQSH	SPS	3.66	1.98	115.8	0.3	2.06	19187	5755	29462
995701	I-5	258.56	C	Silver Cr trib	01	33		1.1	RND	OTH	0.46	0.46	74.6	0	1.61	90		
995703	I-5	259.08	C	unnamed trib	01.0148	33		1.1	RND	OTH	0.46	0.46	91.3	0	1.2	110		
995723	I-5	260	C	Silver Cr trib	01.0136	67		1.1	BOX	GPC	1.22	1.22	108.8	0	0.71			
995709	I-5	260.98	C	Tennant Cr trib	01	67		1.1	BOX	CPC	1.22	0.91	86.5	0	0.74			
995714	I-5	268.25	C	California Cr trib	01	0		1.1	RND	CST	1.6	1.6						
995715	I-5	268.63	C	California Cr trib	01.0068	67	11.48	1.1	RND	CST	1.67	1.67	103.6	0	0.21	4961	51	3815
995731	I-5	270.14	C	unnamed California Cr trib trib	01	67	8.82	1.1	RND	PCC	0.91	0.91	50	0	0.24	2756	0	3604

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
995720	I-5	270.14	C	unnamed California Cr trib trib	01	33	10.52	1.1	RND	PCC	0.91	0.91	34.6	0	0.69	2714	0	3599
933400	I-5	270.2	C	unnamed California Cr trib trib	01	33	8.22	1.1	RND	PVC	0.61	0.61	6.2	0	1.92	425	0	447
995726	I-5	275.33	C	Cain Cr	01.0001	33	7.67	1.2	RND	CST	0.76	0.76	48.9	0	0.8	948	13	556
995726	I-5	275.33	C	Cain Cr	01.0001	33	7.67	2.2	RND	CST	0.76	0.76	48.9	0	0.8	948	13	556
933867	I-90	6.78	C	Lake Washington trib	08	Unknown		1.1	RND	PCC	1.52	1.52	522	0.45				
932886	I-90	7.48	D	Lake Washington trib	08	0												
933863	I-90	7.97	D	Lake Washington trib	08	0												
932887	I-90	8.2	C	Lake Washington trib	08	0		1.1	RND	PCC			418	2.4	0.75			
994412	I-90	10.21	C	Richards Cr	08.0261	67		1.1	OTH	OTH	0.91	0.91	216	0		192		
996251	I-90	10.52	C	Sunset Cr	08.0262	0	8.12	1.1	OTH	OTH	1.7	1.9	175	1.05		2649	733	2832
996252	I-90	12.03	D	Squibbs Cr	08.0156	0	9.98									3227	2870	3549
996478	I-90	12.75	C	Lake Sammamish trib	08	0	6.08	1.1	RND	CST	1.07	1.07	120	2	10	810	86	612
996479	I-90	12.93	C	Lake Sammamish trib	08	0		1.1	RND	PCC	0.61	0.61		1				
996480	I-90	13.01	C	Lake Sammamish trib	08	0		1.1	RND	PCC	0.76	0.76	89.8		8.5			
992798	I-90	13.83	C	Lewis Cr	08.0162	0	33.3	1.1	OTH	PCC	1.52	1.52	313.3	0	4.6	4350	3986	6663
994415	I-90	14.83	C	W Village Park Cr	08	0	6.69	1.1	RND	OTH	1.07	1.07	153	0.12	10	748	84	272
932343	I-90	15.14	C	Lake Sammamish trib	08	33	16.85	1.1	OTH	OTH	1.17	1.17	114.7	0	1.55	1077	896	1309
996477	I-90	15.82	C	Tibbetts Cr trib	08	67	13.54	1.3	RND	CST	1.52	1.52	81	0.12	0.19	2305	486	1123
996477	I-90	15.82	C	Tibbetts Cr trib	08	67	13.54	2.3	RND	CST	1.52	1.52	81.7	0.12	0.05	2305	486	1123
996477	I-90	15.82	C	Tibbetts Cr trib	08	67	13.54	3.3	RND	CST	1.52	1.52	81.8	0.12	0.18	2305	486	1123
996967	I-90	15.89	C	Tibbetts Cr trib	08	67	12.8	1.2	RND	CST	1.22	1.22	31.3	0	-0.35	1377	464	639
996967	I-90	15.89	C	Tibbetts Cr trib	08	67	12.8	2.2	RND	CST	1.22	1.22	31.4	0	-0.61	1377	464	639
996472	I-90	15.92	C	Tibbetts trib trib	08	33	6.73	1.3	RND	PCC	1.07	1.07	84.1	0.16	0.75	605	0	215
996966	I-90	15.92	C	Tibbetts trib trib	08	33	5.38	1.3	RND	CST	1.07	1.07	26.6	0	0.23	538	0	188
996472	I-90	15.92	C	Tibbetts trib trib	08	33	6.73	2.3	RND	PCC	1.07	1.07	84.1	0.16	0.82	605	0	215
996966	I-90	15.92	C	Tibbetts trib trib	08	33	5.38	2.3	RND	CST	1.07	1.07	24.8	0	0.6	538	0	188
996472	I-90	15.92	C	Tibbetts trib trib	08	33	6.73	3.3	RND	PCC	1.07	1.07	84.1	0.16	0.56	605	0	215
996966	I-90	15.92	C	Tibbetts trib trib	08	33	5.38	3.3	RND	CST	1.07	1.07	26.2	0	0.27	538	0	188
996476	I-90	16.03	C	Tibbetts Cr trib	08	33	0	1.2	RND	CST	1.17	1.17	34.3	0	0	1316	459	628
996476	I-90	16.03	C	Tibbetts Cr trib	08	33	0	2.2	RND	CST	1.17	1.17	34.5	0	0.01	1316	459	628
991182	I-90	16.21	C	Tibbetts Cr trib	08	0	11.34	1.1	RND	OTH	1.07	1.07	115.6	0	0.22	827	284	384
996965	I-90	20.42	C, FI	EF Issaquah Cr trib	08.0186	67	22.86	1.1	RND	PCC	1.75	1.75	117.5	0	3.3	1835	2177	5248
932089	I-90	21.82	C	EF Issaquah Cr trib	08	67		1.1	RND	OTH	0.46	0.46	56.4	0	0.89	120		
08.0183 5.00	I-90	22.37	FI	EF Issaquah Cr	08.0183	33	33.67									3828	6482	10790
994410	I-90	23.13	C	Soderman Cr	07.0390	0	10.89	1.1	RND	CST	2.13	2.13	138.4	0.11	4.53	1001	1612	2151
994984	I-90	24.86	C	Lake Cr trib	07	0	13.04	1.1	RND	OTH	0.91	0.91	246.8	1.2		1027	179	1864
994911	I-90	25.37	C	Coal Cr trib	07	0		1.1	RND	CST	0.76	0.76	175	0.26		140		
934853	I-90	25.44	C	Lake Cr trib	07	33		1.1	RND	OTH	0.3	0.3	44	0	1.89			
934826	I-90	25.65	C	unnamed Lake Cr trib trib	07	0		1.1	RND	PVC	0.46	0.46	20.4	0	2.2			
934825	I-90	25.66	C	unnamed Lake Cr trib trib	07	0		1.1	RND	CAL	0.3	0.3	12.5	0	5.34			
934827	I-90	25.66	C	unnamed Lake Cr trib trib	07	0		1.1	RND	PVC	0.61	0.61	90.4	0	2			
934824	I-90	25.66	C	unnamed Lake Cr trib trib	07	33		1.1	RND	PCC	0.46	0.46	23.8	0	0.9			
934786	I-90	25.66	FL	unnamed Lake Cr trib trib	07	0												
934821	I-90	25.68	C	Lake Cr trib	07	0		1.1	RND	PVC	0.61	0.61	53.1		2.15			

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
934822	I-90	25.68	C	Lake Cr trib	07	0		1.1	RND	CST	0.46	0.46	21.1	0	3.36			
934829	I-90	25.68	FL	Lake Cr trib	07	0												
934820	I-90	25.69	C	Lake Cr trib	07.0000	0		1.1	RND	PCC	0.76	0.76	85.2	1.95	0.6			
934855	I-90	26.11	C	Lake Cr trib	07	0		1.1	RND	PCC	0.53	0.53	90.7	0	3.97			
994864	I-90	26.9	C	Good Cr trib	07	0		1.1	RND	CST	0.91	0.91	160	0.48	12	140		
994865	I-90	26.99	C	Good Cr	07.0456	0		1.1	RND	OTH	1.45	1.45		0.52		143		
934814	I-90	27.96	C	unnamed Kimball Cr trib trib	07.0000	0		1.1	RND	CAL	0.46	0.46	57	0	4.09			
934818	I-90	27.99	C	unnamed Kimball Cr trib trib	07.0000	0		1.1	RND	CAL	0.61	0.61	48.9	0.4	15.82			
994940	I-90	28.14	C	Kimball Cr trib	07.0000	0		1.1	RND	CAL	0.53	0.53	157.9	0	16.62			
934816	I-90	28.23	C	Kimball Cr trib	07	0		1.1	RND	CAL	0.46	0.46	35.4	0.46	5.2			
994939	I-90	28.28	C	Kimball Cr trib	07.0460	0		1.1	RND	CAL	0.46	0.46	55.3	0.85	4.2			
994866	I-90	28.33	C	Kimball Cr trib	07	0	1.8	1.1	RND	PCC	0.76	0.76	153.6	0.62	11.6	992	94	260
994867	I-90	28.52	C	Kimball Cr trib	07.0461	0		1.1	RND	CAL	0.69	0.69	53.7	0.63	10.79			
994868	I-90	28.53	C	Kimball Cr trib	07.0461	0	2.55	1.1	RND	CAL	0.61	0.61	45.8	0.65	10.52	579	224	524
994938	I-90	28.57	C	Kimball Cr trib	07.0461	0	2.64	1.1	RND	CAL	0.91	0.91	66.2	0.41	15.47	677	263	603
994869	I-90	28.74	C	Kimball Cr trib	07.0000	0		1.1	RND	CST	0.76	0.76	58.4	0.3	10.46			
994985	I-90	28.81	C	SF Snoqualmie R trib	07.0469	33	3.28	1.1	BOX	CPC	1.85	1.22	123.7	0	0.6	3204	1772	2146
994937	I-90	28.86	C	Kimball Cr trib	07.0000	0		1.1	RND	CST	0.76	0.76	99.1	1.15	12.43			
994874	I-90	29.35	C	Kimball Cr trib	07.0462	0		1.1	RND	CST	0.91	0.91	55.3	1.31	11.09	43		
994933	I-90	29.35	C	Kimball Cr trib	07.0462	0		1.1	RND	CST	0.91	0.91	56.8	0	15.43			
934785	I-90	29.43	C	Kimball Cr trib	07	33		1.1	RND	CAL	0.46	0.46	29.6	0.97				
994932	I-90	29.44	C	Kimball Cr trib	07	0		1.1	RND	CST	0.46	0.46	66.9	1.45	22			
934774	I-90	29.47	C	Kimball Cr trib	07	0		1.1	RND	CAL	0.61	0.61	66.5	0	25.38			
994930	I-90	29.63	C	Kimball Cr trib	07.0463	0		1.1	RND	CST	0.61	0.61	210.8	0	8.67			
994931	I-90	29.63	C	Kimball Cr trib	07.0463	0		1.1	RND	CST	0.61	0.61	192.6		10.76			
994875	I-90	29.75	C	Kimball Cr	07.0454	0		1.1	RND	PCC	0.61	0.61	90.4	1.43	6.33	89	0	0
994929	I-90	29.75	C	Kimball Cr	07.0454	0		1.1	RND	CST	0.58	0.58	100.9	1.43	3.72	129	0	0
994877	I-90	30.45	C	SF Snoqualmie R trib	07	0	3.29	1.1	RND	CST	1.68	1.68	176.8	0	5	2726	4068	2915
994995	I-90	45.73	C	SF Snoqualmie R trib	07	0		1.1	RND	CST	0.76	0.76	114.2	1.6	6.6	143		
994994	I-90	47.35	F	SF Snoqualmie R trib	07	33										161		
995857	I-405	0.42	C	Gilliam Cr	09.0032	67	14.8	1.1	RND	SPS	1.9	1.9	34.1	0	0.49	4048	410	3055
998967	I-405	0.61	C	Gilliam Cr	09.0032	67	15.07	1.1	RND	SST	2.68	2.68	304.4	0	0.2	4129	418	3228
995470	I-405	2.31	C	Rolling Hills Cr	09	0	9.73	1.1	RND	OTH	1.22	1.22	270	0		1865	107	699
994406	I-405	3.06	C	Rolling Hills Cr	09	0	8.79	1.1	RND	OTH	1.3	1.3	140.9	0.13	4.47	810	63	465
998969	I-405	4.61	C	Lake Washington trib	08.0000	0		1.1	RND	OTH	0.76	0.76	132.9	0	7.26	142		
996482	I-405	5.09	C	Johns Cr	08	0	3.93	1.1	RND	PVC	0.46	0.46	134.8	0	2.08	203	0	47
999410	I-405	6.31	C	Clover Cr	08	0		1.1	RND	PCC	0.61	0.61	56.5	0.8	10.85			
933259	I-405	7.61	C	Lake Washington trib	08	0	22.83	1.1	RND	OTH	0.61	0.61	84.9	0	4.32	1211	441	5136
996032	I-405	7.62	C	Lake Washington trib	08	67	17.28	1.1	RND	OTH	1.22	1.22	107.8	0.48	0.56	1208	441	5089
998971	I-405	7.83	C	Lake Washington trib	08	0	8.16	1.1	RND	CST	0.46	0.46	44	0	2.48	605	362	490
998972	I-405	7.9	C	Lake Washington trib	08	0	6.88	1.1	RND	OTH	0.46	0.46	74.4	0	2.59	303	161	167
934704	I-405	8.18	C	Lake Washington trib	08.0000	0		1.1	RND	PCC	0.46	0.46	57.2	2.22		97		
998973	I-405	9.2	D	Lakehurst Cr	08.0281	0	12.31									1378	735	1667
932933	I-405	10.06	C	Coal Cr trib	08	0		1.2	RND	PCC	0.76	0.76	115.2	0	6.48			

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932933	I-405	10.06 C		Coal Cr trib	08	0		2.2 RND	PCC		0.46	0.46	115.2	0	6.73			
933258	I-405	12.03 C		Trail Cr	08	0	2.14	1.1 RND	CAL		0.61	0.61	301	0.52	13.11	18	1	4
998974	I-405	12.51 C		Hixson Cr	08	0	3.7	1.1 RND	PCC		0.61	0.61	62.5	1.7	7.36	162	0	37
933244	I-405	13.16 C		Sturtevant Cr	08	67	23.33	1.2 RND	PCC		1.22	1.22		0		860	557	13634
933244	I-405	13.16 C		Sturtevant Cr	08	67	23.33	2.2 RND	PCC		1.22	1.22		0.1		860	557	13634
992385	I-405	15.09 C		Yarrow Cr	08.0252	0	28.47	1.1 RND	OTH		0.75	0.75	204.8	0.8		2001	704	10761
998982	I-405	19.07 C		Forbes Cr trib	08	0	3.65	1.1 RND	PCC		0.61	0.61	76.1	0.13	2.4	59	6	15
932812	I-405	20.5 C		Juanita Cr trib	08	0		1.2 RND	SST		1.02	0.9	131.2	0	4.54			
932812	I-405	20.5 C		Juanita Cr trib	08	0		2.2 RND	SST		1.02	0.9	129.8	0	4.62			
992654	I-405	20.95 C		Juanita Cr trib	08.0238	0	11.98	1.1 RND	CST		1.37	1.37	257	0	2.17	1025	245	4061
998979	I-405	21.29 C		Juanita Cr trib	08	0		1.1 RND	CST		0.53	0.53	124	3.85				
998981	I-405	21.42 C		Juanita Cr trib	08	0		1.1 RND	CST		0.76	0.76	121.1	1.83				
998602	I-405	21.94 C		Juanita Cr	08.0230	0	13.76	1.1 RND	CST		1.22	1.22	109.3	0.8	3	399	294	269
993104	I-405	25 C		Par Cr trib	08	0	4.79	1.1 RND	CST		0.76	0.76		1.41		272	206	184
993106	I-405	25.35 C		North Cr trib	08	0		1.1 RND	CST		0.76	0.76	114.6	0.56	7.02			
934219	I-405	25.59 C		North Cr trib	08	Unknown		1.1 RND	OTH		0.3	0.3	44	0.58				
934218	I-405	25.6 C		North Cr trib	08	0		1.1 RND	CST		0.76	0.76	53	2.73				
08.0070 A 0.25	I-405	26.46 C, FI		Perry Cr	08	33	13.6	1.1 RND	PCC		1.52	1.52	112.3	0.12	2.4	2524	1067	4525
934994	I-405	26.65 C		Queensborough Cr trib	08	0		1.1 RND	OTH		0.61	0.61	903	1.04				
993109	I-405	26.9 C		Queensborough Cr trib	08	0	20.09	1.1 RND	CST		1.07	1.07	136.6	0	3.43	1684	1098	1093
991008	I-405	27.7 C		North Cr trib	08	0		1.1 RND	CST		0.76	0.76	39.4	0	8.48			
993111	I-405	27.74 D		unnamed North Cr trib trib	08	0	8.79									618	358	433
998976	I-405	27.76 C		North Cr trib	08	0		1.1 RND	CST		0.76	0.76	59.5	1.1				
998977	I-405	27.83 C		North Cr trib	08	0	8.58	1.1 RND	CST		0.76	0.76	86.8	0	6.5	573	317	393
934011	SR 9	0.07 C		unnamed Thomas Cr trib trib	07	67	8.19	1.1 RND	PCC		0.46	0.46	17.5	0	1.6	917	351	496
934015	SR 9	0.12 C		unnamed Thomas Cr trib trib	07	33	9.96	1.1 RND	PCC		0.61	0.61	28.8	0	1.25	404	91	541
102 L012	SR 9	0.17 C		Howell Cr	08.0082	0	9.88	1.1 RND	CST		0.83	0.83	140	0		899	196	472
995982	SR 9	10.61 C		Cemetery Cr	07.0118	67	9.58	1.1 RND	CST		0.61	0.61	45.3	0.28	0.77	3103	582	2475
995087	SR 9	12.57 C		Bunk Foss Cr	07.0130	33	7.06	1.1 RND	PCC		0.61	0.61	52.6	0.11	1.65	1069	156	359
999168	SR 9	14 C		Cenntenial Cr	07	33		1.1 RND	PCC		0.46	0.46	33.8	0	1.7	50		
995086	SR 9	16.66 C		Hulbert Cr	07.0086	0		1.1 RND	CST		0.61	0.61		2.5				
991812	SR 9	17.69 C		unnamed trib	07	33	0.98	1.1 RND	PCC		0.61	0.61	40.5	0	3.9	185	23	35
991813	SR 9	17.75 C		Stevens Cr trib	07	0	6.92	1.1 RND	PCC		0.61	0.61	31	0	2	234	18	222
991814	SR 9	18.79 C		Lake Stevens trib	07.0149	33		1.1 RND	OTH		0.61	0.61	87.7	0	1.4	135		
995084	SR 9	22.72 C		Quilceda Cr trib	07.0044	0	11.9	1.1 RND	PCC		0.46	0.46	25.1	0	2.1	263	0	1505
102 Q028	SR 9	24.44 C		Quilceda Cr trib	07	67	17.48	1.1 RND	PCC		1.52	1.52	53.5	0.45	0.84	2530	1009	10274
995082	SR 9	25.75 C		unnamed trib	07	0		1.1 RND	PCC		0.91	0.91	35.2	0.5	0.85			
990255	SR 9	27.24 C		Portage Cr trib	05.0058	0		1.1 RND	PCC		1.22	1.22	24.9	0	5.3			
996079	SR 9	27.94 C		unnamed Portage Cr trib trib	05	33		1.1 RND	PCC		0.61	0.61	58.6	0	1.53			
991166	SR 9	32.2 C		Bryant Cr	05.0129	67	10.39	1.1 RND	CAL		1.4	1.4	17.9	0	1.57	548	0	5329
996080	SR 9	33.2 C		Roth Cr	05	33		1.1 RND	PVC		0.61	0.61	15.4	0	1.6			
996082	SR 9	34.23 C		Pilchuck Cr trib	05	33		1.1 RND	CST		0.91	0.91	13.1	0.3	2.36			
LP23	SR 9	35.46 C		unnamed Pilchuck Cr trib trib	05.0080B	0	11.91	1.1 RND	CST		1.22	1.22	19.2	0	3.39	495	223	372
996085	SR 9	36.95 C		unnamed trib	05	0		1.1 RND	PCC		0.31	0.31	13.5	0.67	8.14	38		

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LP19	SR 9	37.26	C	unnamed Pilchuck Cr trib	05.0000	0		1.1	RND	OTH	0.61	0.61	31.4	0	13.05	37	37	8
996088	SR 9	38.14	C	unnamed trib	05	0		1.1	RND	PCC	0.61	0.61	11.6	0.33	5.61	52		
996089	SR 9	38.27	C	unnamed trib	05	0		1.1	RND	PVC	0.61	0.61	14.3	0.18	3.64	111		
LP31	SR 9	38.64	C	unnamed trib	05	67		1.1	RND	CST	0.46	0.46	14	0	2.14	30		
LP32	SR 9	38.69	C	unnamed trib	05	33		1.1	RND	PCC	0.76	0.76	11.4	0	4.3			
991158	SR 9	38.83	C	Pilchuck Cr trib	05.0080	67		1.1	RND	PCC	1.22	1.22	14.6	0.4	0.84			
NC158	SR 9	39.16	C	Lake McMurray trib	03	0	10.93	1.1	RND	PCC	0.46	0.46	23.7	0.35	9.4	496	86	1663
995275	SR 9	39.51	C	Lake McMurray trib	03	0	7.26	1.1	RND	PVC	0.61	0.61	18.5	0.1	17.3	157	5	303
NC180	SR 9	39.69	C	Lake McMurray trib	03	33	9.22	1.1	RND	PCC	1.07	1.07	15.7	0.35	8.6	351	17	697
NC170	SR 9	39.87	C	unnamed trib	03	0	5.46	1.1	RND	CST	0.91	0.91	25.7	0	3	285	4	122
990641	SR 9	40.08	C	Lake Cr	03	67	14.29	1.1	RND	PCC	0.91	0.91	12.5	0	1.9	2479	121	4603
NC166	SR 9	40.77	C	Lake McMurray trib	03	0	6.75	1.1	RND	CAL	1.22	1.22	15.1	0.05	6.8	585	160	377
990091	SR 9	41.04	C	Norway Park Cr	03.0265	0	12.14	1.1	RND	CST	0.76	0.76	44.6	0	2.8	1890	730	2081
991451	SR 9	41.5	C	Lake Cr trib	03	0	9.02	1.1	RND	CST	1.21	1.21	16.2	0	4.3	104	232	214
NC164	SR 9	41.93	C	Lake Cr trib	03	0	4.86	1.1	SQSH	CST	0.74	0.46	28.3	0.4	18.7	213	58	122
NC163	SR 9	43.08	C	Lake Cr trib	03	33	12.24	1.1	RND	CST	0.91	0.91	12	0	2.2	684	295	1255
NC69	SR 9	49	C	Nookachamps Cr trib	03	0	10.6	1.1	BOX	GPC	1.22	1.55	11.1	0	4.7	1462	16	2126
HC53	SR 9	59.08	C	unnamed trib	03	33	9.6	1.1	RND	PCC	0.61	0.61	11.9	0	3.6	1458	160	1222
HC93	SR 9	59.46	C	Hansen Cr trib	03.0272	0	14.62	1.1	RND	PCC	0.46	0.46	12.5	0.1		551	6	3309
991114	SR 9	62.36	C	Samish R trib	03	33		1.1	RND	PCC	0.46	0.46	12.9	0	1.24			
SR71	SR 9	63.74	C	Samish R trib	03	33		1.1	RND	OTH	0.91	0.91	17.4	0	2.3			
SR67	SR 9	64.45	C	Samish R trib	03	33		1.1	RND	OTH	1.14	1.14	15.9	0	3.7	199		
991135	SR 9	64.68	C	Samish R trib	03.0069	33		1.1	RND	OTH	1.22	1.22	15.9	0	2.59	186		
995390	SR 9	64.93	C	Samish R trib	03	0		1.2	RND	CST	0.61	0.61	16.2	0.4	6.4	44		
995390	SR 9	64.93	C	Samish R trib	03	0		2.2	RND	CST	0.76	0.76	15.9	0.55	4.2	44		
991136	SR 9	65.07	C	Samish R trib	03	0		1.1	RND	PCC	1.22	1.22	13.7	0	2.9	122		
991116	SR 9	65.32	C	Samish R trib	03.0073	33		1.1	RND	OTH	1.22	1.22	14.4	0	4.58			
991446	SR 9	66.51	C	Samish R trib	03	67		1.1	RND	OTH	0.91	0.91	14.9	0	2.34	76		
991447	SR 9	66.85	C	Samish R trib	03	0	7.52	1.1	RND	PCC	0.91	0.91	11.1	1.19	2.7	478	730	385
995392	SR 9	67.46	C	Samish R trib	03	0		1.1	RND	PCC	0.61	0.61	31.5	0	8.8	83		
995395	SR 9	69.1	C	Samish R trib	03	0		1.1	RND	PCC	0.76	0.76	23.3	0.29	5.6	60		
995396	SR 9	69.15	C	Samish R trib	03	0		1.1	RND	PCC	0.76	0.76	22.8	0.72	3.3	173		
930834	SR 9	69.87	C	Samish R trib	03	33		1.1	RND	PCC	0.61	0.61	20.9	0	1.8			
995398	SR 9	69.88	C	Samish R trib	03	0	5.57	1.1	RND	PCC	0.61	0.61	29.4	0	5.5	351	142	94
991106	SR 9	70.6	C	Landingsrip Cr trib	01	0	10.47	1.1	RND	OTH	0.76	0.76	13.7	0.55	6	2156	2436	1436
995780	SR 9	70.81	C	SF Nooksack R trib	01.0263	33		1.2	RND	PCC	0.91	0.91	26.8	0	8	154		
995780	SR 9	70.81	C	SF Nooksack R trib	01.0263	33		2.2	RND	PCC	0.91	0.91	26.4	0	7.6	154		
995783	SR 9	71.54	C	SF Nooksack R trib	01	67		1.1	RND	PCC	0.76	0.76	17.6	0.14	2.9	81		
992344	SR 9	76.95	C	Black Sl trib	01	0	9.95	1.1	RND	PCC	0.61	0.61	35.2	0.05	2.47	665	0	1053
992345	SR 9	77.12	C	Black Sl trib	01	67	6.21	1.1	RND	PCC	0.7	0.7	18.4	0	0.04	643	16	490
992349	SR 9	77.36	C	Tawes Cr trib	01.0248	67	8.95	1.1	RND	PCC	1.22	1.22	13.4	0	0.37	950	196	680
992350	SR 9	77.43	C	Tawes Cr trib	01.0248	33	14.63	1.1	RND	PCC	0.7	0.7	10.7	0.17	0.06	4387	714	2877
992353	SR 9	77.81	C	Tawes Cr trib	01.0000	67		1.1	RND	PCC	0.61	0.61	12	0	0.08			
992354	SR 9	77.93	C	Tawes Cr trib	01	67		1.1	RND	PCC	0.61	0.61	11.6	0	1.65			

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
992356	SR 9	77.94	C	Tawes Cr	01.0247	67	31.49	1.1	RND	PCC	0.91	0.91	14.5	0	0.3	3520	3282	14056
995790	SR 11	8.66	C	Samish Bay trib	01	33		1.1	RND	PCC	0.61	0.61	16	0	1.18			
995312	SR 11	14.24	C	Samish Bay trib	01	0		1.1	BOX	CPC	0.9	0.94	20.9	3	9.6	114		
940081	SR 11	14.76	C	Wildcat Cove trib	01	0	0.71	1.1	RND	PCC	0.76	0.76	95.4	1.7	12.38	41	0	3
995313	SR 11	15.45	C	Pleasant Bay trib	01.0634	0		1.1	OTH	OTH	0.76	0.76	103.7	1.78	0.07			
995314	SR 11	15.93	C	Chuckanut Bay trib	01.0633	0		1.1	RND	SST	1.22	1.22	38.9	0	12			
995796	SR 11	18.47	C	Chuckanut Cr trib	01.0000	0	6.46	1.1	RND	OTH	0.61	0.61	23	0.45	0.22	545	212	243
990581	SR 11	18.65	C	Chuckanut Cr trib	01.0627	0	16.29	1.1	RND	PCC	0.61	0.61	50.2	0.26	2.9	1138	250	4842
994386	SR 11	21.08	C	Padden Cr	01.0622	33	28.62	1.2	BOX	CPC	1.5	0.95	24.6	0	2.1	8614	3746	29441
994386	SR 11	21.08	C	Padden Cr	01.0622	33	28.62	2.2	BOX	CPC	1.5	0.95	24.5	0	2.2	8614	3746	29441
996277	SR 18	0.29	C, FI	EF Hylebos Cr trib	10	0	28.55	1.2	RND	PCC	0.91	0.91	103.8	0	0.48	2279	209	23126
996277	SR 18	0.29	C, FI	EF Hylebos Cr trib	10	0	28.55	2.2	RND	CST	1.22	1.22	103.3	0	0.59	2279	209	23126
995298	SR 18	0.54	C	EF Hylebos Cr trib	10.0016	0	5.13	1.2	RND	PCC	0.46	0.46	70.2	0	2.03	394	68	197
995298	SR 18	0.54	C	EF Hylebos Cr trib	10.0016	0	5.13	2.2	RND	PCC	0.76	0.76	69.1	0	2.03	394	68	197
997660	SR 18	7.51	C	Big Soos Cr trib	09	0	5.01	1.1	RND	CST	1.52	1.52	105.9	1.3	13.2	428	60	220
997661	SR 18	8	C	Soosette Cr trib	09	0	8.96	1.1	RND	SPS	1.52	1.52	152.4	2.05	6.8	996	354	1114
990390	SR 18	8.9	B, FI	Soosette Cr	09.0073	67	16.54									7575	1233	12221
997669	SR 18	15.14	C	unnamed trib	09	0	2.12	1.1	RND	PCC	0.91	0.91	87.7	0	5.2	585	75	252
995474	SR 18	21.03	C	Holder Cr trib	08.0000	0	7.67	1.1	RND	CST	1.22	1.22	192.3	0	8.67	1266	510	1815
999960	SR 18	21.99	C	Holder Cr trib	08	0		1.1	RND	CST	1.07	1.07	22.1	2	3.9			
990173	SR 18	22.08	C, FI	Holder Cr	08.0178	33	23.5	1.1	BOX	CPC	3.01	3.14	68	0.91	5.37	14636	22651	25225
995970	SR 18	22.55	C	unnamed Holder Cr trib trib	08.0000	0		1.1	RND	CST	1.22	1.22	48.7	0.92	10.92	0		
995971	SR 18	22.75	C	Holder Cr trib	08.0220	0	17.18	1.2	RND	CST	1.52	1.52	79	0.32	3.38	5091	4421	6875
995971	SR 18	22.75	C	Holder Cr trib	08.0220	0	17.18	2.2	RND	CST	1.52	1.52	82.6	0.66	3.08	5091	4421	6875
995972	SR 18	22.95	C	Holder Cr trib	08.0220	33	7.49	1.1	RND	CST	1.52	1.52	37.3	0	1.74	1140	694	691
995973	SR 18	23.45	C	Holder Cr trib	08.0000	0	9.59	1.1	RND	CST	0.61	0.61	37.4	0	2.73	739	855	724
995974	SR 18	23.56	C	unnamed Holder Cr trib trib	08	33	5.53	1.1	RND	CST	0.91	0.91	43.6	0.12	1.49	574	551	485
994859	SR 18	23.66	C	Deep Cr trib	07.0396	33		1.1	RND	CST	1.37	1.37	35.9	0	1.64			
994860	SR 18	24.24	C	Deep Cr trib	07	33		1.1	RND	CST	0.61	0.61	25.7	0	1.59			
934783	SR 18	24.24	C	Deep Cr trib	07	0		1.1	RND	CST	0.54	0.54	16	0	43.98			
934882	SR 18	24.42	C	Deep Cr trib	07	0		1.1	RND	SST	1.52	1.52	57.5	0.88	11.75			
934788	SR 18	24.48	C	Deep Cr trib	07	0		1.1	RND	SST	0.9	0.9	48.5	0	11.06			
994861	SR 18	24.86	C	Deep Cr trib	07.0000	0		1.1	RND	PVC	0.61	0.61	32.2	0.12	10.69			
934831	SR 18	25.27	C	Deep Cr trib	07	0		1.1	RND	CST	0.46	0.46	24.9	1.16	11.16			
934791	SR 18	25.67	C	Deep Cr trib	07.04030	0		1.1	RND	PVC	0.46	0.46	28.7	0.04	2.89			
934689	SR 18	25.68	C	Deep Cr trib	07.0000	33		1.1	RND	CST	0.46	0.46	9.8	0.18	2.36			
07.0396 0.80	SR 18	25.7	C, FI	Deep Cr	07.0396	33	15.93	1.1	ELL	CST	3.36	3.68	79.3	0.64	2.7	3377	2928	9493
934852	SR 18	26.21	C	Raging R trib	07	0		1.1	RND	PVC	0.46	0.46	43	2.35				
990236	SR 18	27.57	C	Lake Cr	07.0393	33	20.65	1.2	RND	PCC	1.07	1.07	25	0	1.28	2168	1597	14558
990236	SR 18	27.57	C	Lake Cr	07.0393	33	20.65	2.2	RND	PCC	1.07	1.07	25.1	0	1.59	2168	1597	14558
934828	SR 18	27.83	C	unnamed Lake Cr trib trib	07	0		1.1	RND	OTH	0.46	0.46		1.82				
996319	SR 20	46.01	C	Campbell Lk trib	03.0000	0	9.41	1.1	RND	PCC	0.61	0.61	31.8	0		672	38	631
996320	SR 20	46.1	C	Campbell Lk trib	03	0	10.24	1.1	RND	PCC	0.46	0.46	35.8	0	1.03	590	38	591
995423	SR 20	48.08	C	Fidalgo Bay trib	03	Unknown		1.1	RND	PCC	0.91	0.91	39.6	0	-0.28			

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
995424	SR 20	48.12	C	Fidalgo Bay trib	03	Unknown			1.1 RND	PCC	0.91	0.91	40.1	0	0.37			
995425	SR 20	48.17	C	Fidalgo Bay trib	03	Unknown			1.1 RND	PCC	0.91	0.91	42.4	0	0.35			
995427	SR 20	49.07	C	Fidalgo Bay trib	03	0			1.1 RND	CST	0.91	0.91	90	0	6.9	79		
995430	SR 20	50.48	C	Fidalgo Bay trib	03	0	9.34	1.1 RND	OTH	OTH	0.91	0.91	97.7	0	5.9	2702	253	3193
PA106	SR 20	52.34	F	Padilla Bay trib	03.0116	Unknown												
PA107	SR 20	52.6	FD	Telegraph Sl	03.0118	0												
995432	SR 20	53.9	C	Indian Sl trib	03.0108	33	7.08	1.2 RND	CST	CST	0.91	0.91	86.1	0	-0.5	5231	0	3595
995432	SR 20	53.9	C	Indian Sl trib	03.0108	33	7.08	2.2 RND	CST	CST	0.91	0.91	85.6	0	-0.5	5231	0	3595
SF49	SR 20	61.26	C	Gages Sl	03.0224	33		1.1 RND	PCC	PCC	0.61	0.61	34.8	0	1.52			
991142	SR 20	69.08	C	Red Cr trib	03	67	9.94	1.1 RND	PCC	PCC	0.46	0.46	15.4	0	1.3	1613	1952	3181
991547	SR 20	70.24	C	Coal Cr trib	03.0279A	33		1.1 BOX	GPC	GPC	1.85	2.05	27.3	0.49	1.28			
991146	SR 20	72.85	C	Childs Cr	03.0294	67	34.3	1.1 ARCH	CPC	CPC	2.43	1.82	14.7	0	-1.9	2380	3106	5728
991123	SR 20	80.1	C	Skagit R trib	03.0363	33		1.1 RND	PCC	PCC	0.46	0.46	15.5	0	1.09			
997394	SR 20	85.39	C	Skagit R trib	04	33		1.1 RND	PCC	PCC	0.61	0.61	23.5	0	3.6	108		
991445	SR 20	85.63	C	unnamed trib	04	0	4.28	1.1 RND	PCC	PCC	0.61	0.61	20.5	0.72	0.48	766	486	450
997396	SR 20	85.94	C	House Cr trib	04.0433	67	4.46	1.1 RND	PCC	PCC	0.61	0.61	21.2	0.06	0.94	715	339	612
997398	SR 20	86.86	C	Skagit R trib	04	0	7.24	1.1 RND	OTH	OTH	0.61	0.61	29.7	1.2	2.21	1054	506	581
GR54	SR 20	87.01	C	Eagle Cr	04	33	28.65	1.1 RND	PCC	PCC	0.61	0.61	26.2	0	0.76	2270	1255	8024
991150	SR 20	87.2	C	Eagle Cr	04	67	19.78	1.1 RND	PCC	PCC	0.61	0.61	29.2	0	-0.2	1946	970	4526
991151	SR 20	87.31	C	Eagle Cr	04	0	13.04	1.1 SQSH	GST	GST	1.57	1.1	28.3	0.1	4.48	1638	1069	1666
GR9	SR 20	87.7	C	Fish Cr	04	33	11.36	1.1 RND	PCC	PCC	0.61	0.61	23.4	0	0.73	2348	1595	2475
GR23	SR 20	88.83	C	Lorenzan Cr	04	0	11.03	1.1 RND	PCC	PCC	0.61	0.61	31.3	0.17	2.05	1582	945	1381
997401	SR 20	90.63	C	unnamed trib	04	0		1.1 RND	PCC	PCC	0.76	0.76	32.9	0	22.5	80		
JK2	SR 20	91.3	C	Skagit R trib	04.0643	0	9.15	1.1 RND	OTH	OTH	0.61	0.61	94	0	3.05	1309	298	740
991706	SR 20	93	C	Skagit R trib	04.0647	0		1.1 RND	CST	CST	0.61	0.61	44.9	7	4.68	145		
991707	SR 20	93.21	C	Skagit R trib	04	0		1.1 RND	CPC	CPC	1.76	1.76	34.8	0.32	10.63	162		
994276	SR 20	93.29	C	Skagit R trib	04	0		1.1 RND	CST	CST	1.21	1.21	50	1.53	6.7	9		
991709	SR 20	93.7	C	Skagit R trib	04	0		1.1 RND	CST	CST	1.87	1.87	49	0.1	12.11	12		
991710	SR 20	93.84	C	Skagit R trib	04.0649	67	4.95	1.2 RND	PCC	PCC	0.61	0.61	16.7	0	2.03	637	379	613
991710	SR 20	93.84	C	Skagit R trib	04.0649	67	4.95	2.2 RND	CST	CST	0.61	0.61	16.5		3.75	637	379	613
991711	SR 20	94.1	C	Skagit R trib	04.0650	0	11.28	1.2 BOX	CPC	CPC	1.52	0.91	25.4	0.45	4.8	2298	1621	1679
991711	SR 20	94.1	C	Skagit R trib	04.0650	0	11.28	2.2 BOX	CPC	CPC	1.52	0.91	25.4	0.45	4.8	2298	1621	1679
994308	SR 20	94.47	C	Skagit R trib	04.0654	0	9.38	1.1 RND	CST	CST	0.76	0.76	36.8	0.32	8.71	1214	1017	1349
991125	SR 20	94.68	C	Skagit R trib	04.0655	0		1.1 RND	CST	CST	1.83	1.83	59.2	0.02	12.7	96		
991126	SR 20	94.82	C	Skagit R trib	04.0657	0	12.4	1.1 RND	SPS	SPS	1.75	1.75	98	0.25	9.89	3790	2528	4966
994225	SR 20	96.12	C	Skagit R trib	04.0671	67	1.52	1.1 RND	PCC	PCC	0.46	0.46	15.2	0	0.46	337	47	406
991127	SR 20	96.23	C	Skagit R trib	04.0672	0	4.8	1.1 RND	PCC	PCC	0.91	0.91	24	0.18	3.08	476	937	1924
997404	SR 20	97.62	C	Skagit R trib	04	0		1.1 RND	OTH	OTH	0.46	0.46	82.7	0.2	8.9	23		
990410	SR 20	99.95	C	Sutter Cr	04.1345	0	8.68	1.1 RND	PCC	PCC	1.52	1.52	24.1	0	2.57	629	413	409
995097	SR 20	105.34	C	Backus Cr	04	33		1.2 RND	CST	CST	1.22	1.22	25.4	0.09	2.6	188		
995097	SR 20	105.34	C	Backus Cr	04	33		2.2 RND	CST	CST	0.91	0.91	17.9	0.13	3.9	188		
CD18	SR 20	105.42	C	Olson Cr	04.1407	0	14.35	1.1 SQSH	SPS	SPS	3.87	2.52	21	0	3	2423	1261	2728
991130	SR 20	112.54	C	Skagit R trib	04	0		1.1 RND	CST	CST	1.22	1.22	18.8	0.2	8.8	102		
991131	SR 20	112.9	C	Skagit R trib	04	33	7.02	1.1 SQSH	CST	CST	1.53	1.07	13.9	0.54	1.22	418	500	235

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
994946	SR 20	114.14	C	Skagit R trib	04	0		1.1	RND	CST	1.22	1.22	15.6	2.1	7.1	100		
994947	SR 20	114.71	C	Skagit R trib	04	0		1.1	RND	CST	0.91	0.91	17.3	0.75	2.1	117		
DM7	SR 20	116.25	C	Skagit R trib	04	0	6.69	1.1	RND	CST	0.91	0.91	28.4	0.6	3.98	540	12	509
DM5	SR 20	117.61	C	Skagit R trib	04	33	1.49	1.2	RND	CST	1.07	1.07	20	0	4.31	245	234	181
DM5	SR 20	117.61	C	Skagit R trib	04	33	1.49	2.2	RND	CST	0.91	0.91	18.9	0.25	1.53	245	234	181
991452	SR 20	118.41	C	Babcock Cr	04.1862	67		1.1	RND	OTH	0.61	0.61	15	0	1.5	137		
997031	SR 20	126.44	C	Diablo Lk trib	04	67		1.2	RND	PVC	0.61	0.61	19	0.1	4	61		
997031	SR 20	126.44	C	Diablo Lk trib	04	67		2.2	RND	PVC	0.61	0.61	19	0.1	5	61		
997588	SR 20	129.63	C	Diablo Lk trib	04	67		1.1	RND	PCC	0.91	0.91	21	0	1	200		
997409	SR 20	134.25	C	Happy Cr	04.2195	0		1.1	RND	SPS	1.91	1.91	42.2	0.9	2.63	20		
997420	SR 20	139.17	C	Ruby Cr trib	04	0		1.1	RND	CST	0.91	0.91	28.7	0.22	16.16	100		
997422	SR 20	139.75	C	Ruby Cr trib	04.2308	0		1.1	RND	CST	1.83	1.83	33.9	0.42	25.37	21		
997425	SR 20	141.48	C	Granite Cr trib	04.2314	0		1.1	RND	SPS	1.52	1.52	30.2	1.65	5.8	2		
997426	SR 20	143.13	C	Beebe Cr	04.2322	0		1.1	RND	SPS	1.45	1.45	47.6	3	18.6	8		
997429	SR 20	145.45	C	County Line Cr	04.2363	0		1.1	RND	CST	1.45	1.45	29.5	0.7	10.62	18		
997435	SR 20	147.07	C	Cabinet Cr	04.2376	0		1.1	ELL	CST	1.95	2.21	63.1	1.8	8.14			
933175	SR 20 Spur	53.53	C	Guemes Channel trib	03	33	16.68	1.1	RND	PVC	0.61	0.61	359	0.5		2357	717	20179
992641	SR 92	0.22	C	Stevens Cr trib	07	0	16.5	1.1	RND	PCC	0.91	0.91	42	0	1.88	825	480	7182
991827	SR 92	0.78	C	Lundeen Cr	07.0150	0	22.45	1.1	RND	OTH	0.61	0.61	71.5	0.12	0.92	2462	222	16657
991830	SR 92	2.2	C	Catherine Cr trib	07	33		1.1	RND	PCC	0.61	0.61	22.3	0.05	1.8	156		
991831	SR 92	2.99	C	Little Pilchuck Cr trib	07	67	6	1.1	RND	PCC	0.61	0.61	30.3	0	0.24	768	13	314
102 N183	SR 96	0.47	C	North Cr	08.0070	33	18.06	1.1	SQSH	CST	1.8	1.17	37.8	0	1.03	3976	2999	4502
995326	SR 96	5.29	C	Thomas Cr	07.0108	0	27.62	1.1	RND	CST	1.66	1.66		0		2225	1725	4378
995214	SR 96	5.86	C	Snohomish R trib	07	0		1.1	RND	PCC	0.46	0.46	17.6	0.56	5.5			
995215	SR 96	5.98	C	Snohomish R trib	07.0123	33		1.1	RND	PCC	0.76	0.76	16	0	2.9			
995216	SR 96	6.09	C	Snohomish R trib	07.0120	0		1.1	BOX	CPC	1.35	0.93	15	1.15	1.2	265		
995217	SR 96	6.49	C	Marshland Sl trib	07	0	10.26	1.1	RND	CST	0.91	0.91	25	2.15	3.56	684	85	1074
991196	SR 99	13.54	C, FI	McSorley Cr	09.0381	67	5.24	1.1	BOX	CPC	1.22	1.22		0		1047	207	449
997684	SR 99	23.41	C	Duwamish R trib	09	0	9.68	1.1	RND	PCC	1.52	1.52	49.8	0.5	4.3	680	465	679
997685	SR 99	24.71	C	NF Hamm Cr	09	33		1.1	RND	CST	0.91	0.91				248		
997687	SR 99	24.86	C	NF Hamm Cr	09	67		1.2	RND	CST	1.22	1.22				443		
997687	SR 99	24.86	C	NF Hamm Cr	09	67		2.2	RND	CST	1.22	1.22				443		
993095	SR 99	47.66	C	Scriber Cr	08	33		1.1	BOX	CPC	1.85	1.25	30.1	0	1.86			
934387	SR 99	48.69	C	Swamp Cr trib	08	0		1.2	RND	PCC	0.99	0.99	38.6	0	4.04			
934387	SR 99	48.69	C	Swamp Cr trib	08	0		2.2	RND	PCC	0.99	0.99	38.6	0	3.96			
996216	SR 99	49.01	C	Scriber Cr trib	08	33	7.58	1.1	RND	CAL	0.61	0.61	48.8	0	1.39	463	78	358
993849	SR 99	51.45	C	Swamp Cr trib	08.0000	33	8.47	1.1	RND	OTH	0.76	0.76	159	0	1.1	620	3	554
102 N192	SR 99	54.23	C	North Cr	08.0070	33	14.17	1.1	OTH	OTH	0.76	0.76	74.1	0	0.57	518	219	2313
990111	SR 104	25.52	C, FI	Willow Cr	08.0011	0	9.22	1.1	BOX	PCC	1.83	0.91	98	0.33	3.64	692	277	482
996208	SR 104	29.23	C	Lake Ballinger trib	08.0000	0	5.07	1.1	RND	OTH	0.46	0.46	62.8	0.24	3.56	152	66	64
990653	SR 104	30.67	C	Lyon Cr trib	08.0053	33	9.82	1.1	RND	CST	0.76	0.76	18	0.15	3.11	1301	423	1006
990253	SR 104	31.23	C	Lyon Cr	08.0052	67	32.92	1.1	BOX	PCC	1.85	1.25	60.4	0		12368	6207	14826
991623	SR 104	31.73	C	Lyon Cr trib	08	0	7.45	1.1	RND	CAL	0.76	0.76	20	0.1	4.31	601	178	222
105 S011918a	SR 161	34.03	C	Hylebos Cr trib	10.0015	0	20.74	1.1	RND	PCC	0.61	0.61	41.7	0	7.36	1066	58	16754

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
997974	SR 161	34.14	C	unnamed Hylebos Cr trib trib	10	0	9.77	1.1	RND	PCC	0.61	0.61	32.4	0	4.1	1106	346	984
992062	SR 161	34.71	C	Hylebos Cr trib	10.0006	0	13	1.1	RND	PCC	0.46	0.46	35.1	1.6	1.57	1313	21	2075
992064	SR 161	35.01	C	EF Hylebos Cr trib	10	0	32.98	1.1	RND	CST	0.75	0.75	63.3	0.54	8.02	5329	917	33462
992360	SR 164	5.89	C	White R trib	10	67	15.96	1.1	BOX	CPC	1.83	1.22	16.1	0	1.43	4009	68	7112
996279	SR 164	7.01	C	White R trib	10	33		1.1	RND	PCC	0.61	0.61	27.8	0	0.8	161		
105 R042117a	SR 164	8.24	C, FI	Pussyfoot Cr	10.0048	33	22.72	1.1	RND	SST	3.3	3.3	65.7	0	6.2	15021	2161	29295
991213	SR 164	9.06	C	Seconds Cr	10.0050	0	10.06	1.1	RND	PCC	1.22	1.22	36.6	1.16	2	1528	149	995
996281	SR 164	10.65	C	unnamed trib	10	67		1.1	RND	PCC	0.46	0.46	12.2	0	1.5	100		
991839	SR 164	13.34	C	Newaukum Cr trib	09.0000	33	11.23	1.1	RND	OTH	1.22	1.22	69.8	0.56	1.95	1480	59	461
991198	SR 167	21.17	C	Mill Cr	09.0015	67	14.55	1.2	RND	CST	1.22	1.22	84.2	0	0.99	6280	4927	9850
991198	SR 167	21.17	C	Mill Cr	09.0015	67	14.55	2.2	RND	CST	1.22	1.22	83.3	0	1.01	6280	4927	9850
995469	SR 167	22.63	C	Springbrook Cr trib	09	0		1.1	RND	PCC	0.61	0.61	43.5	0	0.6	95		
991681	SR 167	23.84	C	Springbrook Cr trib	09	67		1.1	RND	CST	0.61	0.61	50.1	0	1.2			
935530	SR 167	23.93	C	unnamed Springbrook Cr trib trib	09	33		1.1	RND	OTH	0.61	0.61	50.7	0	0.73			
991200	SR 167	24.16	C	Springbrook Cr trib	09	67		1.1	RND	CST	0.76	0.76	51.4	0	1.7	102		
997637	SR 169	4.77	C	Green R trib	09	0		1.1	RND	PCC	0.46	0.46	32.9	0.45	10.3			
997691	SR 169	7.15	C	Rock Cr	09.0085	67	9.83	1.1	RND	OTH	0.46	0.46	28.6	0	1.51	1531	355	2046
997692	SR 169	7.24	C	Jones Lk trib	09	0	11.74	1.1	RND	PCC	0.91	0.91	32.2	0	4.4	1527	1024	2049
997693	SR 169	8.27	C	Ginder Cr trib	09	0	17.83	1.2	RND	CST	0.61	0.61	23.3	0	4.7	1289	193	7337
997693	SR 169	8.27	C	Ginder Cr trib	09	0	17.83	2.2	RND	PCC	0.61	0.61	22.5	0	3.7	1289	193	7337
997694	SR 169	8.29	C	Ginder Cr	09	33	16.84	1.1	RND	PCC	0.91	0.91	74.4	0	1.39	1806	834	8711
997695	SR 169	9.95	C	Ravensdale Cr	09.0083	33	21.38	1.1	BOX	CPC	1.83	1.53	27.1	0	0.33	3753	4786	33616
996492	SR 169	17.92	C	unnamed	08	0	9	1.1	RND	PCC	0.46	0.46	57.3	0	2	231	42	474
996493	SR 169	18.06	C	Cedar R trib	08	33	7.07	1.1	RND	PCC	0.46	0.46	14.1	0	2.94	96	0	271
996514	SR 169	18.06	C	Cedar R trib	08	0	8.68	1.1	RND	CST	0.46	0.46	12.5	0.42	6.49	154	9	413
996496	SR 169	18.77	C	Cedar R trib	08	0		1.1	RND	OTH	0.46	0.46	26.5	0.07	2.4	125		
934881	SR 169	19.72	C	Cedar R trib	08	0		1.1	RND	OTH	0.61	0.61	46.5	1.02	3.16	185		
996500	SR 169	19.82	C	Cedar R trib	08	33		1.1	RND	CAL	0.46	0.46	51.3	0.03	1.15	86		
996917	SR 202	0.97	C	Sammamish R trib	08	67		1.1	RND	OTH	0.61	0.61	24.2	0	1.2	152		
996930	SR 202	1.03	C	Sammamish R trib	08	67		1.1	RND	PCC	0.3	0.3	12.1	0	0.91	49		
996921	SR 202	4.17	C	Sammamish R trib	08	33	25.85	1.1	RND	CAL	0.84	0.84	16.8	0	2.8	3014	1779	8321
996925	SR 202	4.25	C	High School Cr trib	08	0	16.47	1.1	RND	PCC	0.91	0.91	55.2	0	3.3	2360	2059	5339
991181	SR 202	5.27	C	Sammamish R trib	08.0101	0		1.1	RND	OTH	1.22	1.22	58.9	5.31	18.9	48		
990142	SR 202	11.96	C, FI	Evans Cr	08.0106	33	23.6	1.1	BOX	PCC	1.83	1.83	51.9	1.7	5.26	7579	8607	33779
990325	SR 202	13.22	C	Patterson Cr	07.0376	67	38.58	1.1	BOX	CPC	1.53	0.91	11.1	0	-0.5	5159	4494	52450
995194	SR 202	16.79	C	Patterson Cr trib	07	33	18.03	1.1	RND	PCC	0.61	0.61	15.8	0	2.1	3603	851	15290
991174	SR 202	19.69	C	Patterson Cr trib	07.0378	33	13.53	1.2	BOX	CPC	1.22	0.65	12.9	0.11	0	4147	3488	10674
991174	SR 202	19.69	C	Patterson Cr trib	07.0378	33	13.53	2.2	RND	PCC	0.46	0.46	16.5	0	1.2	4147	3488	10674
991173	SR 202	19.76	C	Patterson Cr trib	07.0377	33	22.43	1.1	BOX	CPC	2.43	1.78	17.1	0	0.2	8805	4527	36961
101S-22	SR 202	22.56	C	Snoqualmie R trib	07.0429	33	6.47	1.1	BOX	CPC	1.86	1.54	29.8	0.22	4.8	630	262	547
101SA-06	SR 202	23.18	C	Skunk Cr	07.0434	33	10.11	1.1	BOX	CPC	1.2	0.6	30.1	0.1	2	2659	1729	1729
995200	SR 202	23.22	C	Skunk Cr trib	07	0	8.63	1.1	RND	PCC	0.61	0.61	30.7	0	3.8	368	47	357
101S-10	SR 202	23.45	C	Mud Cr	07.0435	Unknown	0	1.1	BOX	CPC	1.22		10.7	0	3.82	1218	1549	1841
995203	SR 202	28.76	C	SF Snoqualmie R trib	07	67	3.6	1.2	RND	PCC	0.91	0.91	19.1	0	0.6	5540	5192	12647

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
995203	SR 202	28.76	C	SF Snoqualmie R trib	07	67	3.6	2.2	RND	PCC	0.91	0.91	18.9	0	0.4	5540	5192	12647
101L-01	SR 203	3.97	C	Griffin Cr trib	07.0365	33		1.1	RND	PCC	0.46	0.46	19.3	0.14	3	120		
991720	SR 203	4.37	C	Snoqualmie R trib	07	0	22.9	1.1	RND	OTH	0.61	0.61	49.2	0	2.2	1075	30	13613
991721	SR 203	4.91	C	Indian Cr	07	67	8.58	1.1	RND	PCC	0.76	0.76	11.4	0	1.67	263	90	85
995167	SR 203	7.26	C	Horseshoe Lk trib	07	0	12.2	1.1	RND	OTH	0.61	0.61	23.6	0	3.9	1446	0	5156
995178	SR 203	11.61	C	unnamed trib	07	33		1.1	RND	PCC	0.61	0.61	10.9	0	3.59			
991716	SR 203	13.6	C	Loutsis Cr	07	33	19.65	1.1	RND	PCC	1.22	1.22	45.1	0	1.5	5050	2001	20108
995184	SR 203	18.19	C	Snoqualmie R trib	07	0		1.1	RND	PCC	0.91	0.91				30		
995186	SR 203	18.48	C	Snoqualmie R trib	07.0238	33		1.1	RND	PCC	0.91	0.91	52.5	0.05	2.8	167		
995137	SR 204	0.21	C	Ebey Sl trib	07	0		1.1	RND	OTH	0.76	0.76	59	1.6	4.1			
995138	SR 204	0.54	C	Ebey Sl trib	07	0	12.9	1.1	RND	PCC	1.22	1.22	67.5	0	5.9	1574	746	2691
995141	SR 204	0.96	C	Ebey Sl trib	07	0		1.1	RND	PCC	0.46	0.46	49.1	0.42	6.4			
995150	SR 204	1.19	C	Burri Cr	07.0091	0		1.1	RND	PCC	0.91	0.91	76.7	0.18	6.8			
995151	SR 204	1.64	C	Ebey Sl trib	07	33		1.1	RND	PCC	0.46	0.46	31.7	0	2.3	51		
995152	SR 204	1.8	C	Weiser Cr	07	0	7.22	1.1	RND	PCC	0.91	0.91	63.6	0	4.98	700	327	920
991204	SR 410	22.67	C	Boise Cr trib	10	33	20.07	1.1	RND	PCC	1.22	1.22	38.7	0	1.2	1018	159	2941
991206	SR 410	22.94	C	Boise Cr trib	10	33	16.18	1.1	RND	PCC	0.76	0.76	43.8	0	0.39	636	59	1290
990474	SR 410	25.17	C	Watercress Cr	09	0	9.67	1.1	BOX	CPC	1.22	1.22	19.1	0	0.68	395	0	317
991218	SR 410	27.25	C	Boise Cr trib	10	0		1.1	RND	PCC	0.61	0.61	23.8	0.43	3			
990043	SR 410	27.44	C	Boise Cr	10.0057	67	3.34	1.2	BOX	PCC	1.83	1.83	32.6	0	1.28	1786	1623	9336
990043	SR 410	27.44	C	Boise Cr	10.0057	67	3.34	2.2	BOX	PCC	1.83	1.83	32.6		1.28	1786	1623	9336
998622	SR 410	31.48	C	Scatter Cr trib	10	33	7.52	1.1	RND	PCC	0.61	0.61	27.4	0	0.4	2021	61	6322
998625	SR 410	35.29	C	White R trib	10	33		1.1	RND	PCC	1.52	1.52	21.9	0	3.8			
990082	SR 410	35.77	C	Clay Cr	10.0103	0	12.53	1.1	BOX	PCC	1.83	1.83	38.4	6.1	14	668	421	1678
990102	SR 410	36.49	C	Cyclone Cr	10.0105	0	4.38	1.1	BOX	PCC	2.44	2.44	28.6	0.8	9	385	432	2205
991219	SR 410	39.18	C	White R trib	10	0		1.1	RND	PCC	0.76	0.76	16.4	0.36	4	36		
996661	SR 410	40.31	C	White R trib	10	0		1.1	RND	PCC	0.61	0.61	15.1	0.21	9.6	102		
996662	SR 410	40.51	C	White R trib	10	0		1.1	RND	PCC	0.76	0.76	21.1	0.7	5.4	48		
105 R022221a	SR 410	41.42	C	White R trib	10	0	5.46	1.1	RND	PCC	0.91	0.91	15.4	0	4.95	524	275	665
105 R071916a	SR 410	48.29	C, FI	Boundary Cr	10.0250	33	7.55	1.1	RND	PCC	1.22	1.22	29.6		2.4	596	453	647
998664	SR 410	48.94	C	unnamed trib	10	0		1.1	RND	PCC	0.61	0.61	22	0.7	7.8			
991012	SR 410	49.93	C	White R trib	10	33		1.1	SQSH	CST	1.4	1.01	24.5	0.24	1.7	0		
996671	SR 410	53.01	C	White R trib	10	67		1.1	SQSH	CST	1.05	0.83	28.2		0	3.9		
105 R072016a	SR 410	55.29	C	Dry Cr	10.0310	0	3.42	1.1	BOX	CPC	1.52	1.52	25.9	3.04	5.6	431	215	812
991016	SR 410	55.51	C	Deep Cr	10	0	7.82	1.1	BOX	CPC	1.83	1.83	36.2	2.86	5.74	548	1391	2060
105 R072018a	SR 410	59.57	C	White R trib	10	0	17.52	1.2	RND	PCC	0.76	0.76	13.4	0	7.16	37		
105 R072018a	SR 410	59.57	C	White R trib	10	0	17.52	2.2	RND	PCC	0.76	0.76	13.4	0	7.16	37		
996266	SR 509	9.18	C	Puget Sound trib	10	0	16.13	1.1	RND	CST	0.69	0.69	40.4	0	3.11	869	337	11780
991651	SR 509	9.6	C	Puget Sound trib	10	33		1.2	RND	PCC	0.76	0.76	75.1	0	4.3	166		
991651	SR 509	9.6	C	Puget Sound trib	10	33		2.2	RND	PCC	0.76	0.76	75	0	4.4	166		
996270	SR 509	10.96	C	Lakota Cr	10.0386	0	17.96	1.1	RND	PCC	1.07	1.07	41.5	0	4.91	836	579	6887
996272	SR 509	11.43	C	Lakota Cr trib	10.0387	0	14.8	1.1	RND	OTH	0.46	0.46	285.1	0.3	0.16	595	1510	9428
991192	SR 509	13.49	C	Puget Sound trib	09.0385	0		1.1	RND	CST	1.07	1.07	36.6	0.6	9.3			
997675	SR 509	14.2	C	Redondo Cr	09.0384	0	20.34	1.1	RND	PCC	0.61	0.61	469.7	0	3.5	1436	89	25784

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997679	SR 509	24.42	C, FI	Miller Cr	09.0371	33	23.33	1.2 RND	SPS	SPS	1.83	1.83	135	0		5783	4124	10201
997679	SR 509	24.42	C, FI	Miller Cr	09.0371	33	23.33	2.2 RND	SPS	SPS	1.83	1.83	135	0		5783	4124	10201
997678	SR 509	28.9	D	NF Hamm Cr	09	0										70		
997681	SR 509	29.15	C	Lost Fork Hamm Cr	09	0	12.41	1.1 RND	CST	CST	0.91	0.91	227	3.7		182	62	1720
997682	SR 509	29.2	C	Lost Fork Hamm Cr	09	0		1.1 RND	PCC	PCC	0.46	0.46						
997645	SR 515	3.97	C	Panther Cr	09.0006	33	21.41	1.1 RND	PCC	PCC	0.91	0.91	65.4	0	1.3	1725	772	22742
991191	SR 516	0.43	C	Barnes Cr	09.0380	0	11.75	1.1 RND	OTH	OTH	0.61	0.61	29.5	0	2.3	1789	1066	2055
997674	SR 516	1.28	C	Massey Cr trib	09	0		1.1 RND	OTH	OTH	0.5	0.5	47.8	0	3.5	164		
997649	SR 516	2.98	C	Green R trib	09.0043	0	8.77	1.1 RND	CST	CST	0.91	0.91	111.6	0	7.51	409	196	573
997651	SR 516	5.8	C	Mill Cr	09.0015	67	12.95	1.1 RND	CST	CST	1.22	1.22	185	0		4561	4871	6196
998886	SR 518	2.82	C	Gilliam Cr	09.0032	0	5.64	1.1 RND	CST	CST	0.91	0.91	270.8	0		236	13	104
992651	SR 518	3	C	Gilliam Cr trib	09	0	4.97	1.1 RND	CST	CST	0.61	0.61	57.3	1.53		140	37	97
997697	SR 518	3.57	C	unnamed trib	09	0		1.1 RND	CST	CST	0.46	0.46	60.8	0		171		
994117	SR 520	5.42	C	Lake Washington trib	08	0		1.1 RND	CST	CST	0.91	0.91	98.7	4.42	8.07	33		
990167	SR 520	7.9	C	Goff Cr	08	0	18.61	1.2 RND	CST	CST	0.91	0.91	77.4	1.26	4.9	710	704	897
990167	SR 520	7.9	C	Goff Cr	08	0	18.61	2.2 RND	CST	CST	0.91	0.91	77.4	1.45	4.8	710	704	897
990430	SR 522	2.86	C, FI	Thornton Cr	08.0030	67	19.16	1.1 BOX	CPC	CPC	1.51	1.85	84.3	0	1.26	7076	2966	29580
990655	SR 522	6.63	C	Cat Whisker Cr	08.0056	0	18.94	1.1 OTH	OTH	OTH	1.46	1.46	200.6	0.77	6	5185	1758	14807
993083	SR 522	11.26	C	Par Cr	08	67	12.74	1.1 RND	PCC	PCC	1.52	1.52	96.9	0	0.43	1569	175	5210
996916	SR 522	12.86	C	Little Bear Cr trib	08	0	8.98	1.1 RND	CST	CST	1.14	1.14	196	0	1.2	713	312	287
996880	SR 522	12.86	C	Little Bear Cr trib	08		6.89	1.1 RND	PCC	PCC	1.22	1.22	29.2	0	0.48	932	322	304
996913	SR 522	13.66	C	Little Bear Cr trib	08	0	8.08	1.1 RND	PCC	PCC	0.61	0.61	54.6	0	3.86	2053	506	839
994430	SR 522	14.25	C	Howell Cr	08.0082	0	8.39	1.2 RND	OTH	OTH	0.46	0.46	55.6	0	5.8	286	161	238
994430	SR 522	14.25	C	Howell Cr	08.0082	0	8.39	2.2 RND	OTH	OTH	0.46	0.46	55.4	0	5.7	286	161	238
994432	SR 522	14.38	C	Howell Cr trib	08	0	4.7	1.1 RND	OTH	OTH	0.46	0.46	56.5	0	5.9	176	27	83
994440	SR 522	16.57	C	Daniels Cr	08.0122	33		1.1 RND	PCC	PCC	0.91	0.91	53.4	0	0.79	668		819
992371	SR 522	17.48	C	Evans Cr trib	07.0211	33	14.94	1.1 RND	PCC	PCC	0.76	0.76	55	0	0.21	1794	34	5325
992632	SR 522	17.82	C	Evans Cr trib	07.0211	67	16.98	1.1 RND	PCC	PCC	0.91	0.91	76.4	0	0.54	2571	45	17031
992631	SR 522	17.87	C	Evans Cr trib	07.0211	67	17.12	1.1 RND	PCC	PCC	0.91	0.91	54.3	0	0.68	2786	554	17617
934276	SR 522	18.77	C	unnamed Evans Cr trib trib	07	33		1.1 RND	OTH	OTH	0.61	0.61	63.6	0	1.78	370		1012
992378	SR 522	19.28	C	Anderson Cr	07.0212	0	9.5	1.1 RND	PCC	PCC	0.91	0.91	115.9	0.2	11.59	1027	210	948
992381	SR 522	19.35	C	Anderson Cr trib	07.0000	0	5.28	1.1 RND	CST	CST	0.91	0.91	89.9	0.85	20.26	756	180	548
992382	SR 522	19.44	C	Anderson Cr trib	07.0213	0	1.45	1.1 RND	CST	CST	0.76	0.76	117.4	0	12.8	237	21	111
990139	SR 522	20.19	C	Elliott Cr	07.0214	0	15.78	1.1 RND	PCC	PCC	0.91	0.91	71.8	0	3.19	2294	2058	4413
931850	SR 522	21.82	C	unnamed trib	07	0	3.76	1.1 RND	OTH	OTH	0.46	0.46	32	1.05	5.16	180	38	87
996915	SR 523	1.24	C	Thornton Cr trib	08	0		1.1 RND	PCC	PCC	0.76	0.76	41.4	0.12	2.03			
996205	SR 524	0.21	C	Shelleberger Cr	08.0010	0	8.09	1.1 RND	PCC	PCC	0.76	0.76	34.2	0.14	2.42	887	184	415
993103	SR 524	3.89	C	Scriber Cr	08	67	19.21	1.2 SQSH	CST	CST	1.8	1.1	40.3	0	0.47	3421	808	3273
993103	SR 524	3.89	C	Scriber Cr	08	67	19.21	2.2 SQSH	CST	CST	1.8	1.1	40.3	0	0.72	3421	808	3273
992846	SR 524	5.54	C	Golde Cr	08.0062	33	11.57	1.1 RND	PCC	PCC	0.91	0.91	38.5	0.92	1.82	568	312	1936
993100	SR 524	6.95	C	Martha Cr	08	33	10.67	1.1 RND	OTH	OTH	0.91	0.91		0		2500	1971	1403
991053	SR 524	8.06	C	North Cr trib	08	0		1.1 RND	PCC	PCC	0.46	0.46	29	0.15	2.6	100		
996460	SR 524	14.28	C	Daniels Cr	08.0122	67	5.44	1.1 RND	PCC	PCC	0.61	0.61	18.8	0	0.9	364	0	398
994124	SR 524	14.4	C	Daniels Cr	08.0122	0	7.8	1.2 RND	PCC	PCC	0.46	0.46	40.8	0	2.28	526	0	558

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
994124	SR 524	14.4 C		Daniels Cr	08.0122	0	7.8	2.2	RND	PCC	0.46	0.46	41.1	0	2.2	526	0	558
994123	SR 524	14.52 C		Daniels Cr	08.0122	67	6.43	1.1	RND	PCC	0.91	0.91	31.6	0	0.38	639	0	781
102 5088	SR 525	0.28 C		Maple Cr	08.0059	67		1.1	RND	CST	1.02	1.02	76.8	0	0.18	1252		
991176	SR 525	1.1 C		Box Springs Cr	08	0	22.74	1.1	RND	CST	0.91	0.91	55	0	4.97	999	317	4917
991054	SR 525	2.05 C		Swamp Cr trib	08.0065	0		1.1	RND	OTH	0.61	0.61	86.1	0.2	4.2			
996203	SR 525	7.56 C		Possession Bay trib	08	0		1.1	RND	OTH	0.46	0.46	185	0		143		
996188	SR 525	7.82 C		Possession Bay trib	08	0		1.1	RND	PCC	0.61	0.61	57.9	0.6	22.4	163		
995994	SR 525	9.14 C		Clinton Cr	06	0	9.15	1.1	OTH	CST	0.61	0.61		2.4		1367	248	755
995986	SR 525	9.54 C		Clinton Cr	06	0	6.48	1.1	RND	OTH	0.61	0.61	41	0.17	4.7	567	4	197
995984	SR 525	9.7 C		Clinton Cr	06	0	5.71	1.1	RND	PCC	0.61	0.61	27	0.68	3	272	0	59
995987	SR 525	9.84 C		Clinton Cr	06	67		1.1	RND	PCC	0.61	0.61	37.3	0	0.1			
995992	SR 525	11.99 C		Maxwellton Cr	06.0029	67		1.1	RND	PCC	0.46	0.46	37.8	0	0.5			
991805	SR 525	15.03 C		Deer Lagoon trib	06.0037	33	12.3	1.1	RND	PCC	0.61	0.61	38.4	0	1.46	2219	0	32822
931879	SR 525	21.15 C		Honeymoon Bay trib	06	67		1.1	RND	CAL	0.76	0.76	39.5	0	-0.96			
995126	SR 526	0.77 C		Japanese Gulch Cr	07.1729	0		1.1	RND	OTH	1.22	1.22	104.5	0	2.2			
995127	SR 526	2.94 C		Merrill and Ring Cr	07.1725	0		1.1	RND	CST	1.22	1.22	161.6	0	5.3	96		
993084	SR 527	2.76 C		Queensborough Cr	08	0	21.41	1.1	RND	CST	1.22	1.22	65.5	0	2.57	2031	1345	1471
08.0077 0.20	SR 527	6.55 C, FI		Penny Cr	08.0077	33	33.97	1.1	BOX	CPC	2.75	1.22	42.9	0.34	0.44	13458	3462	39288
990294	SR 528	2.51 C, FI		Munson Cr	07.0073	67	9.99	1.1	SQSH	CST	1.4	0.98	24.3	0	0.04	1727	680	2192
934372	SR 529	6 C		Steamboat Sl trib	07.0000	Unknown		1.1	RND	PVC	0.61	0.61	16.8	0	1.19	121		
990574	SR 530	23.97 C		NF Stillaguamish R trib	05.0136	0		1.1	RND	CST	0.91	0.91	51.8	0.2	3	140		
990627	SR 530	24.29 C		NF Stillaguamish R trib	05	0		1.1	RND	SST	1.52	1.52	3	0.61	6	0		
991159	SR 530	24.65 C		Trafton Cr	05.0137	0	20.18	1.1	RND	PCC	1.22	1.22	56.4	0.3	2.5	4520	1308	7332
990629	SR 530	25.74 C		Schoolyard Cr trib	05.0148	0	17.47	1.1	RND	PCC	0.46	0.46	20.3	0	5.02	1494	553	6819
996092	SR 530	25.88 C		Schoolyard Cr trib	05	0	6.39	1.1	RND	PCC	0.61	0.61	21.6	0.2	4.99	78	0	161
991160	SR 530	25.94 C, FI		Schoolyard Cr	05.0145	67	22.94	1.1	RND	SST	1.89	1.89	32.6	0	1.65	5678	3255	11375
990628	SR 530	26.29 C		Schoolyard trib	05	33	12.3	1.1	RND	PCC	0.46	0.46	23.9	0.2	1.76	643	53	2557
991161	SR 530	26.4 C		unnamed trib	05	33		1.1	RND	PCC	0.46	0.46	25.3	0	2.29	169		
990632	SR 530	26.68 C		NF Stillaguamish R trib	05.0151X	67	8.99	1.1	RND	PCC	0.61	0.61	28.7	0	1.15	1709	1151	2087
990631	SR 530	26.7 C		unnamed trib	05.0147	0		1.1	RND	PCC	0.76	0.76	24.5	0.27	4.9			
990633	SR 530	26.87 C		NF Stillaguamish R trib	05.0151	0	10.47	1.1	RND	PCC	0.91	0.91	24.9	0.41	3.01	1126	1015	1337
990630	SR 530	27.46 C		NF Stillaguamish R trib	05.0150	0	7.95	1.1	RND	PCC	0.76	0.76	16.9	1.38	2.9	480	384	473
990634	SR 530	27.66 C		NF Stillaguamish R trib	05.0152X	67		1.1	RND	PCC	0.46	0.46	17.1	0	1.46	44		
990361	SR 530	27.75 C		Ryan Falls Cr	05.0152	33		1.1	RND	CST	1.43	1.43	23.8	0.18	1.5	40		
990638	SR 530	30.67 C		McGovern Cr trib	05	33		1.1	RND	PVC	0.46	0.46	21	0	1.09	172		
990644	SR 530	31.01 C, FI		NF Stillaguamish R trib	05	67	14.38	1.1	RND	CAL	1.22	1.22	19.5	0	0	1296	51	285
991164	SR 530	32.51 C		NF Stillaguamish R trib	05	67		1.1	RND	PVC	0.46	0.46	21.3	0	2.02	164		
990639	SR 530	34.3 C		NF Stillaguamish R trib	05	33	6.71	1.1	RND	PCC	0.61	0.61	22.9	0	2	162	0	295
990646	SR 530	34.7 C		NF Stillaguamish R trib	05	67		1.1	RND	PCC	0.61	0.61	10.8	0	2.23			
996100	SR 530	35.06 C		NF Stillaguamish R trib	05	67		1.1	RND	CAL	0.53	0.53	12.4	0	-3.7	111		
990640	SR 530	35.24 C		Montague Cr trib	05	33	10.17	1.1	RND	PCC	0.46	0.46	11.5	0	3.47	756	126	413
995402	SR 530	36.67 C		NF Stillaguamish R trib	05	0		1.1	RND	OTH	0.46	0.46	23.8	0.77	9.7	111		
990649	SR 530	38.53 C		NF Stillaguamish R trib	05	67		1.1	RND	PCC	0.61	0.61	12.2	0	0.57			
990650	SR 530	38.6 C		NF Stillaguamish R trib	05	67		1.1	RND	PCC	0.61	0.61		0	1	76		

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990246	SR 530	42.14	C	Little French Cr	05.0253	0	8.84	1.2	RND	PCC	1.22	1.22	36.4	1.19	0.14	1005	1711	623
990246	SR 530	42.14	C	Little French Cr	05.0253	0	8.84	2.2	RND	PCC	1.22	1.22	36.3	0.88	0.08	1005	1711	623
990652	SR 530	43.34	C	NF Stillaguamish R trib	05	67	10.03	1.1	RND	PCC	0.76	0.76	25.2	0	2.22	1263	761	2280
997712	SR 530	64.41	C	Hilt Cr trib	04	0		1.1	RND	CAL	0.61	0.61	18.1	1.57	2.4	30		
990885	SR 530	66.5	C	Skagit R trib	04.1336	Unknown		1.1	RND	PCC	1.22	1.22	19.2	0.18	0.36			
991750	SR 531	2.61	C	Fish Cr	05.0038	33	18.14	1.1	RND	CST	0.61	0.61	26.5	0	1	1252	0	32069
991057	SR 531	8.37	C	MF Quilceda Cr trib	07	33		1.1	SQSH	CST	0.9	0.59	27.1	0	0.89	152		
990080	SR 532	6.68	C	Church Cr trib	05.0020	0	7.48	1.1	RND	CST	0.61	0.61	68.7	0.65	2.77	748	0	293
990890	SR 532	8.71	C	Jackson Gulch Cr	05.0061	0	13.77	1.1	RND	CST	0.76	0.76	54.6	0	2.49	2104	25	3504
CR2	SR 534	0.53	C	Carpenter Cr trib	03	33	10.72	1.1	RND	PCC	0.91	0.91	10.9	0	2.1	2508	345	1533
995265	SR 534	0.6	C	Carpenter Cr trib	03	0	11.76	1.1	RND	CST	0.76	0.76	67.7	0.25	2.7	2335	339	1479
PA2	SR 536	2.07	C	unnamed Higgins Sl trib trib	03.0110	67		1.1	RND	PCC	0.61	0.61	17.9	0	1.18			
NC129	SR 538	2.18	C	Logan Cr	03.0253	33	17.96	1.2	SQSH	OTH	1.6	1.15	31.6	0	1.61	2587	1579	3973
NC129	SR 538	2.18	C	Logan Cr	03.0253	33	17.96	2.2	SQSH	OTH	1.6	1.15	31.2	0	1.32	2587	1579	3973
992987	SR 539	0.04	C	Baker Cr	01.0554	33	22.77	1.1	SQSH	SPA	2.38	1.74	128.6	0	0.41	9896	1263	11405
992978	SR 539	0.05	FL, FI	Spring Cr	01.0553	67	22.64									9015	4469	17932
991973	SR 539	0.3	C	Spring Cr trib	01.0553	0	7.17	1.1	RND	OTH	0.91	0.91	54.3	0.05		792	710	1562
990015	SR 539	0.3	C, FI	Spring Cr	01.0556	33	29.65	1.2	RND	CMP	1.37	1.37	34.7	0	1.3	8110	4469	17248
990015	SR 539	0.3	C, FI	Spring Cr	01.0556	33	29.65	2.2	RND	CMP	1.37	1.37	34.7	0	1.4	8110	4469	17248
991473	SR 539	11.1	C	Duffner Ditch	01.0202	67	15.7	1.2	RND	PCC	1.22	1.22	17.9	0.71	0.62	9764	224	4584
991473	SR 539	11.1	C	Duffner Ditch	01.0202	67	15.7	2.2	RND	PCC	1.22	1.22	17.9	0.46	1.84	9764	224	4584
991803	SR 542	2.4	C	Toad Lk Cr	01.0560	0	13.41	1.1	RND	PCC	1.55	1.55	62.5	0.3	2.5	1591	1832	3204
990014	SR 542	3.45	C, FI	Squalicum Cr	01.0552	33		1.1	BOX	CPC	1.83	1.83	36.6	0	0.92	4745	4806	11762
991111	SR 542	13.47	C	Mitchell Cr trib	01.0000	33	16.88	1.1	RND	SST	0.38	0.38	31.4	0	0.82	1716	151	2892
990582	SR 542	14.07	C	Nooksack R trib	01	0		1.1	RND	PCC	0.7	0.7	40.8	0	3	98		
990584	SR 542	15.05	C	Jim Cr trib	01.0000	33	7.24	1.1	RND	OTH	0.61	0.61	23	0	1.52	213	81	106
990585	SR 542	15.08	C	Jim Cr trib	01	33	6.55	1.1	RND	OTH	0.76	0.76	19.2	0	4	322	84	235
990587	SR 542	15.75	C	NF Nooksack R trib	01	Unknown		1.1	RND	PCC	0.91	0.91	19.4	0	1.29			
990588	SR 542	15.97	C	NF Nooksack R trib	01.0338	33	5.85	1.1	RND	PCC	0.91	0.91	16	0	3.5	256	351	437
995776	SR 542	16.21	C	unnamed trib	01	0		1.1	RND	PCC	0.76	0.76	43.1	0	6.3	104		
991107	SR 542	16.28	C	Nooksack R trib	01.0337	33		1.1	RND	PCC	1.07	1.07	30.5	0	3	115		
995777	SR 542	17.37	C	NF Nooksack R trib	01	0		1.1	RND	PCC	0.61	0.61	29.1	1.9	7.7			
990589	SR 542	17.85	C	NF Nooksack R trib	01	0		1.1	RND	PCC	0.91	0.91	30.5	0.7	6.9	90		
991112	SR 542	19.6	C	NF Nooksack R trib	01	67	14.85	1.1	RND	PCC	1.07	1.07	16.9	0	1.78	338	128	2919
991704	SR 542	20.1	C	NF Nooksack R trib	01	33		1.1	RND	PCC	1.52	1.52	17.9	0	0.34			
991705	SR 542	21.45	C	Kendall Cr trib	01	33	12.39	1.1	SQSH	CST	1.06	0.7	11.3	0.36	2.7	786	449	406
991113	SR 542	23.95	C	High Cr trib	01	0	9.96	1.2	RND	CST	0.61	0.61	19.8	0	3.6	642	49	252
991113	SR 542	23.95	C	High Cr trib	01	0	9.96	2.2	RND	CST	0.61	0.61	19.9	0.3	3.1	642	49	252
995770	SR 542	24.25	C	High Cr trib	01	67	9.34	1.2	RND	CST	0.91	0.91	24.4	0.34	0.8	875	726	509
995770	SR 542	24.25	C	High Cr trib	01	67	9.34	2.2	RND	CAL	0.61	0.61	11.9	0	2.9	875	726	509
990577	SR 542	24.49	C	High Cr trib	01	33		1.1	RND	CST	0.61	0.61	17.5	0.14	2			
990590	SR 542	26.25	C	NF Nooksack R trib	01	67		1.1	RND	CST	0.46	0.46	13.4	0	0.89	179		
991640	SR 542	27.2	C	Nooksack R trib	01	0		1.1	RND	PCC	0.61	0.61	20.5	0	2.92			
990579	SR 542	28.79	C	NF Nooksack R trib	01	Unknown		1.1	RND	PCC	0.61	0.61	13.4	0	2.69			

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
995409	SR 542	28.87 C		NF Nooksack R trib	01	0	8.08	1.1 RND	PCC	PCC	0.76	0.76	18	0	11.1	372	114	377
990580	SR 542	29.02 C		NF Nooksack R trib	01	0		1.1 RND	PCC	PCC	0.61	0.61	63.5	0	10.8	108		
990597	SR 542	31.43 C		NF Nooksack R trib	01	0		1.1 RND	PCC	PCC	0.76	0.76	28.6	0	10.17			
990598	SR 542	31.57 C		NF Nooksack R trib	01.0000	33	12.59	1.1 BOX	CPC	CPC	1.54	1.58	25.7	0	0.97	1509	571	3213
990600	SR 542	32.08 C		Hedrick Cr trib	01	67	5.82	1.1 RND	PCC	PCC	0.61	0.61	16.7	0	1.32	338	29	106
990602	SR 542	34.49 C		NF Nooksack R trib	01	33	11.41	1.1 RND	OTH	OTH	0.76	0.76	17.9	0.72	3.53	583	112	898
995413	SR 542	35.55 C		NF Nooksack R trib	01	0		1.1 RND	CST	CST	0.46	0.46	17.9	1.2	12.2	88		
990603	SR 542	36.61 C		Lookout Cr	01	0	2.46	1.1 RND	CST	CST	1.22	1.22	24.9	0.7	6.71	535	340	455
990604	SR 542	38.15 C		Deerhorn Cr	01	0	9.02	1.2 RND	CST	CST	1.83	1.83	23.8	0.9	7.3	172	80	235
990604	SR 542	38.15 C		Deerhorn Cr	01	0	9.02	2.2 RND	CST	CST	1.83	1.83	23.8	1	7.4	172	80	235
990605	SR 542	38.38 C		NF Nooksack R trib	01	0		1.1 RND	CST	CST	0.91	0.91	18.3	0.91	7	216		
995561	SR 542	38.86 C		NF Nooksack R trib	01	0		1.1 RND	PCC	PCC	0.46	0.46	18.3	0.4	8.4	38		
995567	SR 542	40.77 C		NF Nooksack R trib	01	0		1.1 BOX	CPC	CPC	1.84	1.84	23.9	1.1	15.3	38		
995571	SR 542	42.13 C		NF Nooksack R trib	01	33		1.1 RND	PVC	PVC	0.91	0.91	18.1	0.04	3.7	64		
995577	SR 542	43.52 C		NF Nooksack R trib	01	67		1.2 BOX	CPC	CPC	1.84	1.84	16.1	0.08	1.07			
995577	SR 542	43.52 C		NF Nooksack R trib	01	67		2.2 BOX	CPC	CPC	1.84	1.84	16.1	0.08	1.07			
995585	SR 542	46.11 C		NF Nooksack R trib	01	33		1.2 BOX	CPC	CPC	1.83	1.23	12.2	0	2.3			
995585	SR 542	46.11 C		NF Nooksack R trib	01	33		2.2 BOX	CPC	CPC	1.83	1.23	12.2	0	1.6			
995439	SR 542	49.44 C		Bagley Cr trib	01	0		1.1 RND	OTH	OTH	0.61	0.61	29.5	1.5	10			
995695	SR 542	49.74 C		unnamed Bagley Cr trib trib	01	0		1.1 RND	PVC	PVC	0.61	0.61	14.7	0	10.9	95		
995595	SR 542	52.97 C		Razor Hone Cr trib	01	0		1.2 RND	PCC	PCC	0.61	0.61	11.5	0		99		
995595	SR 542	52.97 C		Razor Hone Cr trib	01	0		2.2 RND	PCC	PCC	0.61	0.61	11.5	0		99		
995443	SR 542	53.05 C		Razor Hone Cr trib	01	0		1.1 RND	PCC	PCC	0.61	0.61	14.2	0	4.4	153		
930309	SR 543	0.12 C		Cain Cr	01.0001	33	7.57	1.1 RND	CST	CST	1.1	1.1	101.9	0	1.1	632	11	528
996168	SR 544	3.51 C		Four Mile Cr trib	01	67	7.91	1.1 RND	OTH	OTH	0.61	0.61	13.6	0.3	-1.3	1050	0	1281
931144	SR 546	0.17 C		Duffner Ditch	01.0202	33	8.42	1.2 RND	PCC	PCC	0.61	0.61	19	0	0.68	1023	0	403
931144	SR 546	0.17 C		Duffner Ditch	01.0202	33	8.42	2.2 RND	PCC	PCC	0.61	0.61	19.2	0	0.73	1023	0	403
990510	SR 546	0.46 C		Double Ditch	01.0211	33	49.75	1.1 BOX	PCC	PCC	1.9	1.23	42.7	0	0.49	11783	12360	33987
996161	SR 546	0.47 C		Double Ditch	01.0211	33	42.44	1.1 BOX	PCC	PCC	1.85	1.22	45.8	0	0.32	11783	13767	35939
996163	SR 546	1.47 C		Fishtrap Cr trib	01.0213	33	12.17	1.1 BOX	CPC	CPC	1.83	1.22	42.7	0	0.25	7798	0	2361
996164	SR 546	2.01 C		Fishtrap Cr trib	01.0214	67	14.08	1.1 BOX	PCC	PCC	1.83	1.22	67	0	0.7	7089	197	3868
990223	SR 546	4.21 C		Kamm Ditch	01.0223	33		1.1 BOX	CPC	CPC	1.83	1.22	20	0	1.15			
996167	SR 546	6.02 C		Squaw Cr trib	01.0681	33	14.72	1.1 RND	PCC	PCC	1.07	1.07	31.2	0	0.58	613	0	2434
995772	SR 547	6.16 C		Saar Cr trib	01	0		1.1 RND	PCC	PCC	0.46	0.46	17	0	0.45	38		
995774	SR 547	6.71 C		Saar Cr trib	01.0000	0	6.95	1.1 RND	PCC	PCC	0.61	0.61	40	0	2.58	497	32	100
996003	SR 548	0.29 C		California Cr trib	01.0082	67	12.39	1.1 RND	PCC	PCC	0.91	0.91	45.7	0	0.52	5314	631	2449
996006	SR 548	0.87 C		California Cr trib	01	33		1.1 RND	CAL	CAL	0.46	0.46	19.1	0	0.89			
996007	SR 548	1.14 C		unnamed California Cr trib trib	01	33		1.1 RND	PCC	PCC	0.61	0.61	23	0	2.26			
996008	SR 548	1.24 C		California Cr trib	01.0079	33	8.96	1.1 RND	PCC	PCC	0.61	0.61	26.1	0.2	2.03	1574	345	471
996142	SR 548	4.27 C		Fingalson Cr trib	01	0	4.38	1.1 RND	PCC	PCC	0.61	0.61	22.2	0.37	2.4	135	0	40
996148	SR 548	6.76 C		Terrell Cr trib	01.0094	33	7.84	1.1 RND	PCC	PCC	0.61	0.61	15	0	0.4	838	0	610
996149	SR 548	8.11 C		Terrell Cr trib	01.0090	67	12.69	1.1 OTH	OTH	OTH	0.76	0.76	12.9	0	0.7	3702	221	8466
996153	SR 548	10.55 C		California Cr trib	01.0047	67	7.43	1.2 RND	PCC	PCC	0.61	0.61	17.7	0	2.6	293	11	995
996153	SR 548	10.55 C		California Cr trib	01.0047	67	7.43	2.2 RND	SST	SST	0.91	0.91	18	0	3.39	293	11	995

Appendix IA. WSDOT Northwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
996156	SR 548	13.8	C	Cain Cr	01.0001	0	10.26	1.1	RND	OTH	1.53	1.53	239	0		2355	79	1194
991702	SR 900	18.59	C	May Cr	08.0176	33		1.1	BOX	PCC	1.22	0.61	9.3	0	4.4			
990432	SR 900	19.14	C	Tibbetts Cr trib	08.0169X	67	5.84	1.1	RND	CST	0.61	0.61	12.3	0	2.28	185	0	380
991185	SR 900	19.4	C	Tibbetts Cr trib	08.0174	0		1.1	BOX	PCC	0.91	0.91	11.6	0.26	2	20		
990433	SR 900	19.5	C, FI	Tibbetts Cr	08.0169	33	19.29	1.1	BOX	PCC	1.22	1.83	21.3	0	2	1763	1083	2975
932426	US 2	5.02	C	Bunk Foss Cr	07.0130	0	10.64	1.1	RND	OTH	0.93	0.93	66.2	0.21	6.98	1573	215	1241
932428	US 2	5.18	C	Bunk Foss Cr	07.0130	0	10.92	1.1	RND	CST	1.03	1.03	140	1.2	7.76	1814	230	1376
995101	US 2	6.23	C	Bunk Foss Cr	07.0130	67	15.81	1.1	RND	PCC	2.44	2.44	103.9	0	0.04	4701	1279	18388
995108	US 2	12.94	C	French Cr trib	07.0186	67	5.77	1.1	BOX	PCC	2.04	2.48	45.5	0	-0.4	616	0	659
101NORT-01	US 2	15.74	C	Skykomish R trib	07.0857	0		1.1	BOX	CPC	1.56	1.82	54.2	0	0.89			
933734	US 2	19.65	C	unnamed Skykomish R trib trib	07	33		1.1	RND	OTH	0.91	0.91	26.6	0	1.3			
101NORT-32	US 2	20.48	C	Skykomish R trib	07	0		1.1	RND	PCC	0.61	0.61	34	0	6.21			
101NORT-33	US 2	20.53	C	Skykomish R trib	07	33		1.1	RND	PCC	0.61	0.61	51.5	0	0.33			
101TOWEN-02	US 2	21.74	C	Groeneveld Cr	07.0864B	0	15.5	1.1	RND	PCC	0.91	0.91	35.3	0.1	2.3	3176	265	2897
991822	US 2	34.36	C	Skykomish R trib	07.0000	0	11.46	1.2	RND	PCC	1.22	1.22	22.1	0	23.7	1597	848	1202
991822	US 2	34.36	C	Skykomish R trib	07.0000	0	11.46	2.2	RND	PCC	1.22	1.22	22.6	0	21.3	1597	848	1202
991825	US 2	36.73	C	SF Skykomish R trib	07	0		1.1	RND	CST	1.07	1.07	79.3	0	14	121		
995058	US 2	44.26	C	SF Skykomish R trib	07.0000	0		1.1	RND	PCC	1.52	1.52	40.6	2.3	7.01			
995059	US 2	44.3	C	SF Skykomish R trib	07.0000	0		1.1	RND	PCC	1.22	1.22	25.1	0.7	7.77			
995000	US 2	45.47	C	SF Skykomish R trib	07.1298	33	18.47	1.1	RND	PCC	1.22	1.22	19.5	0.07	1	1411	1117	2933
995060	US 2	47.75	C	SF Skykomish R trib	07	33		1.1	RND	PCC	1.51	1.51	16	0	3.5	53		
995002	US 2	48.78	C	SF Skykomish R trib	07	0		1.1	RND	OTH	0.46	0.46	70.6	0.16	6	38		
934093	US 2	48.82	C	SF Skykomish R trib	07.0000	33	7.63	1.1	RND	PVC	0.46	0.46	6.2	0.2	3.39	58	42	53
995020	US 2	48.94	C	SF Skykomish R trib	07	0	12.53	1.1	RND	PCC	1.22	1.22	15.8	0	7.51	585	306	609
995021	US 2	49.87	C	SF Skykomish R trib	07	33	10.26	1.1	OTH	OTH	1.22	1.22	47.2	0	1.23	1534	1708	1890
995062	US 2	52.39	C	Tye R trib	07	0	4.86	1.1	RND	OTH	1.22	1.22	34.4	0	4.27			
995063	US 2	52.47	C	Tye R trib	07	33		1.1	RND	PCC	0.91	0.91	23.9	0	8.7	13		
995023	US 2	52.7	C	Tye R trib	07	0	9.81	1.1	RND	PCC	1.22	1.22	17.7	0.2	4.46	457	553	655
995024	US 2	52.75	C	Tye R trib	07	33		1.1	RND	PCC	0.91	0.91	23	0	6	124		
995025	US 2	52.81	C	Tye R trib	07	0		1.1	RND	PCC	1.22	1.22	15.9	0	5.36	146		
995031	US 2	56.19	C	Tye R trib	07	0		1.1	RND	CST	0.91	0.91	29.2	0.19	22	46		

¹Field Codes

Codes Used for Culvert Shape

ARCH - bottomless arch
 BOX - rectangular or square
 ELL - ellipse
 OTH - other
 RND - round
 SQSH - squash (pipe arch)

Codes Used for Culvert Materials

CAL - corrugated aluminium
 CMP - corrugated metal pipe
 CPC - cast in place concrete
 CST - corrugated steel
 OTH - other

Feature Type

B - bridge
 C - culvert
 D - dam
 DL - dike/levee
 EC - erosion control
 F - fill/punchoon
 FD - fill/debris
 FI - fishway
 FL - flume

²The culvert # identifies individual culverts at multiple stream crossings. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Appendix IB. WSDOT North Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990486	I-90	161.57	C	Winchester Wasteway	41	67		1.2	BOX	PCC	1.52	1.83	81.9	0	0.8			
990486	I-90	161.57	C	Winchester Wasteway	41	67		2.2	BOX	PCC	1.52	1.83	81.9	0	0.86			
997015	SR 17	40.74	C	Lind Coulee trib	41	33		1.1	RND	PCC	1.22	1.22	56.2	0	1.19			
991582	SR 17	126.52	C	EF Foster Cr trib	50	0		1.1	RND	OTH	1.22	1.22	31.3	0	2.9			
990153	SR 17	131.21	C	EF Foster Cr trib	50	0		1.1	BOX	PCC	1.22	1.22	21.3	1.1	3.66			
990154	SR 17	132.05	C	EF Foster Cr trib	50	0		1.1	BOX	PCC	1.22	1.22	23.6	0.28	2.54			
997436	SR 20	148.43	C	Granite Cr trib	04	0		1.1	RND	CST	1.07	1.07	27.8	0.35	20.93	524		
997437	SR 20	149.42	C	Granite Cr trib	04	0		1.1	RND	CST	0.99	0.99	44	0	13.95			
997438	SR 20	150.02	C	Granite Cr trib	04	0		1.1	RND	CST	1.14	1.14	26.9	0	10.88			
997439	SR 20	150.13	C	unnamed trib	04	0		1.1	RND	CST	1.07	1.07	36.3	1.5	5.76			
997441	SR 20	151.27	C	Granite Cr trib	04	0		1.1	RND	CST	0.61	0.61	21.1	0.3	7.71			
997442	SR 20	151.66	C	Granite Cr trib	04.2413	33		1.1	RND	CST	0.91	0.91	24.5	0	5.13			
997443	SR 20	152.03	C	Granite Cr trib	04	33		1.1	RND	CST	0.76	0.76	18.6	0	2.53	64		
997445	SR 20	152.46	C	Granite Cr trib	04	0		1.1	RND	CST	0.91	0.91	26.7	1	8.74	120		
997448	SR 20	153.71	C	Swamp Cr	04.2429	0		1.1	ELL	CST	2.55	2.97	35.7	1.85	8.16			
997453	SR 20	154.67	C	Granite Cr trib	04	0		1.1	RND	CST	1.52	1.52	30.3	0.65	0.92	116		
997114	SR 20	156.3	C	Porcupine Cr	04.2453	0		1.2	ELL	CST	1.32	1.63	31.2	1.45	10.9			
997114	SR 20	156.3	C	Porcupine Cr	04.2453	0		2.2	ELL	CST	1.32	1.63	30.4	0.6	11.2			
997575	SR 20	156.81	C	Granite Cr trib	04	0		1.1	RND	CST	1.07	1.07	26	0.6	4.47	30		
997576	SR 20	156.86	C	unnamed trib	04	0		1.1	RND	CST	1.07	1.07	31.9	0.2	14.3	115		
999306	SR 20	157.88	C	Bridge Cr	47	0		1.1	ELL	CST	1.3	1.45	50.2	0.4	5.2			
999313	SR 20	158.36	C	Bridge Cr trib	47	0		1.1	RND	SPS	2.21	2.21	23.2	0	7.97			
999315	SR 20	158.5	C	Bridge Cr trib	47	0		1.1	RND	CST	0.76	0.76	19.1	0.27	4.34	65		
999316	SR 20	158.78	C	Bridge Cr	47	33		1.1	RND	SPS	2.59	2.59	38.4	0	1.28			
999317	SR 20	159.89	C	State Cr	47	0		1.1	RND	SPS	2.59	2.59	135.9	1.3	7.2			
999319	SR 20	160.74	C	State Cr trib	47	0		1.1	RND	CST	1.22	1.22	44.6		10.8	27		
999320	SR 20	161.51	C	State Cr trib	47	0		1.1	RND	CST	0.76	0.76	30.5	0.27	4.52	12		
993055	SR 20	163.61	C	Early Winters Cr trib	48	0		1.1	RND	CST	1.22	1.22	81.9	2.05	14.4	130		
990342	SR 20	168.25	C	Pine Cr	48.1528	0	5.44	1.1	SQSH	SPS	3.47	2.24	19.3	0.8	4.91	5058	3520	9331
993163	SR 20	168.3	C	Early Winters Cr trib	48	0		1.1	RND	CST	0.91	0.91	22.3	0.47	7.21	70		
993171	SR 20	169.31	C	Early Winters Cr trib	48	0		1.1	RND	CST	0.76	0.76	19.2	0.75	7.54	160		
993179	SR 20	170.73	C	Silver Star Cr	48	0		1.1	ARCH	SPS	2.48	1.8	37.8	0	10.55	0		
993184	SR 20	171.97	C	Early Winters Cr trib	48	0		1.1	RND	CST	1.22	1.22	27.1	0	9.63	11		
990468	SR 20	173.16	C	Varden Cr	48.1479	0	4.66	1.1	SQSH	SPS	5.5	2.38	31.1	0.1	10.4	360	310	1235
993207	SR 20	174.98	C	Pekin Cr	48	0	3.05	1.1	SQSH	SPS	2.32	1.66	19.6	0.32	5.5	641	513	1161
993230	SR 20	185.93	C	Boesel Canyon Cr	48	0	4.93	1.1	RND	CST	0.61	0.61	25.8	0.42	10.3	378	204	342
980378	SR 20	188.17	C	Methow R trib	48	33	7.72	1.1	SQSH	CST	0.91	0.61	24.4	0	3.25	300	61	142
980131	SR 20	208.44	C	Frazer Cr trib	48.0309A	0	6.61	1.1	RND	CST	0.46	0.46	15	0	6.08	465	152	234
993405	SR 20	213.99	C	Frazer Cr	48.0309	33	3.29	1.1	RND	CST	0.61	0.61	18.3	0	6	1801	657	2020
993815	SR 20	215.96	C	Summit Cr	49.0054	33	2.17	1.1	RND	CST	0.91	0.91	114.2	0	6.8	456	279	415
993817	SR 20	218.48	C	Summit Cr	49.0054	33	4.11	1.1	RND	CST	0.91	0.91	18.9	0.2	3.1	4657	3080	5298
990406	SR 20	219.38	C	Summit Cr	49.0054	0	5.78	1.1	RND	CST	1.37	1.37	29.1	1.1	18.93	13563	2334	13877
991687	SR 20	220.1	C	Summit Cr trib	49	33	4.65	1.1	RND	OTH	0.76	0.76	35.7	0.21	4.4	978	55	8669
993818	SR 20	220.85	C	Summit Cr	49.0054	0		1.1	RND	PCC	1.22	1.22	23.4	0.47	7.2	199		

Appendix IB. WSDOT North Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990247	SR 20	223.18	C	Little Loup Cr	49.0052	0		1.1	OTH	OTH	2	3.19	112.5	1.5	4.8	131		
990418	SR 20	224.49	C	Tallant Cr	49.0065	0	2	1.1	RND	PCC	1.07	1.07	22.3	0	5.4	379	111	403
993824	SR 20	225.6	C	Tallant Cr	49.0065	33	4.79	1.1	RND	PCC	1.52	1.52	25.9	0	1.7	1674	1590	2469
990419	SR 20	226.27	C	Tallant Cr	49.0065	0	6.23	1.1	BOX	CPC	1.18	2.49	25.5	1.15	4.2	2915	3063	4741
990420	SR 20	226.96	C	Tallant Cr	49.0065	0	6.79	1.1	RND	CST	1.83	1.83	32	1.7	5.6	4149	5252	6664
990421	SR 20	227.22	C	Tallant Cr	49.0065	33	6.27	1.3	RND	CST	0.76	0.76	17.8	0	3.3	4613	5497	7227
990421	SR 20	227.22	C	Tallant Cr	49.0065	33	6.27	2.3	RND	OTH	0.61	0.61	18.4	0	4.7	4613	5497	7227
990421	SR 20	227.22	C	Tallant Cr	49.0065	33	6.27	3.3	RND	CST	0.91	0.91	19.1	0	5.1	4613	5497	7227
994020	SR 20	263.4	C	Bonaparte Cr	49.0246	33	3.89	1.1	BOX	CPC	3.06	1.86	30	0	2.3	1441	714	4252
994021	SR 20	263.62	C	Bonaparte Cr	49.0246	33	4.21	1.1	BOX	CPC	3.06	1.86	28.8	0.23	2.27	1832	635	5857
994022	SR 20	264.08	C	Bonaparte Cr	49.0246	33	4.89	1.1	BOX	CPC	3.06	1.84	29.9	0.28	3.92	2796	1880	10625
994025	SR 20	265.57	C	Bonaparte Cr trib	49	0		1.1	RND	PCC	0.61	0.61	25.3	0	13.9			
994030	SR 20	266.09	C	Bonaparte Cr	49.0246	33		1.1	BOX	CPC	3.05	1.84	28.7	0.32	2.3	30		
994031	SR 20	266.22	C	Bonaparte Cr	49.0246	67	2.14	1.1	BOX	CPC	3.05	1.85	25.8	0	2.77	222	126	794
994035	SR 20	278.6	C, FI	Bonaparte Cr	49.0246	67	6.62	1.1	BOX	CPC	2.15	1.82	15.1	0	1.7	17679	28293	72435
994037	SR 20	279.3	C	Bonaparte Cr	49.0246	0	9.57	1.1	BOX	CPC	2.15	1.84	29.4	0	1.7	23119	38005	104274
994043	SR 20	283.52	C	Bonaparte Cr trib	49	67		1.1	RND	CST	0.76	0.76	20.4	0	2.2			
994047	SR 20	284.52	C	Bonaparte Cr trib	49	67		1.1	RND	PCC	0.76	0.76	23	0	2.4			
999348	SR 20	295.16	C	Maple Cr	52.0383	0		1.1	BOX	CPC	1.22	1	51.5	0	4.2			
999349	SR 20	296.89	C	WF Granite Cr	52.0379	33		1.1	BOX	CPC	2.44	1.22	19.1	0	1.2			
991762	SR 26	1.79	C	Sand Hollow Cr	41.2151	0	15.95	1.1	RND	CST	1.82	1.82	89.9	2.8	3.2	5406	1452	5700
990570	SR 26	29.87	C	Crab Cr Wasteway	41	33		1.1	RND	CST	2.23	2.23	23.5	0	1.6			
990571	SR 26	29.95	C	Crab Cr Wasteway	41	0		1.1	RND	CST	1.22	1.22	26.8	0	9			
997815	SR 26	42.7	C	unnamed trib	36	0		1.2	RND	CST	2.21	2.21	58.1	3	0.95			
997815	SR 26	42.7	C	unnamed trib	36	0		2.2	RND	CST	2.21	2.21	58.1	3	0.94			
991776	SR 28	2.31	C	Columbia R trib	44	0		1.1	RND	PCC	1.22	1.22	38.1	0.25	7.09			
991947	SR 28	2.32	C	Sand Canyon Springs	44.0756	0	11.57	1.1	BOX	CPC	1.52	1.52	19.8	1.95	5.7	3352	1520	2398
997474	SR 28	7.44	C	Columbia R trib	44	0		1.1	RND	PCC	0.46	0.46	27.8	0.35	4.8	125		
990882	SR 28	22.72	C, FI	Lynch Coulee	41	0	9.46	1.1	BOX	PCC	3.66	3.05	113.4		3	4751	2019	4375
997487	SR 28	26.66	C	Babcock Ridge Lk trib	41	67		1.1	RND	PCC	0.61	0.61	24.5	0	0.53			
997814	SR 28	40.66	C	unnamed trib	41	0		1.1	RND	PCC	0.61	0.61	23.6	0.44	2.3			
992048	SR 150	2.25	C	Lake Chelan trib	47	0		1.2	RND	CST	0.61	0.61	18.4	0	11.2			
992048	SR 150	2.25	C	Lake Chelan trib	47	0		2.2	RND	CST	0.61	0.61	18.5	0	9.6			
999308	SR 150	3.8	C	Lake Chelan trib	47	0		1.1	RND	CST	0.91	0.91	17.3	0	16.43	174		
993416	SR 153	7.62	C	Squaw Cr	48.0043	0	4.94	1.1	BOX	CPC	1.22	1.22	27.6	1.35	0.76	6309	1845	6356
993438	SR 153	26.51	C	Benson Cr	48.0277	0		1.1	RND	CST	2.44	2.44	26.4	0.61	10			
999262	SR 155	32.29	C	Peter Dan Cr	53.0014	33		1.1	RND	SPS	1.22	1.22	66	0	5.1			
999263	SR 155	33.31	C	Lake Roosevelt trib	53.0012	0		1.1	RND	SPS	2.22	2.22	81	0	14.19	46		
999374	SR 155	41.53	C	Little Nespelen R	51	0		1.1	BOX	CPC	2.44	1.83	20.7	0.8	3.43			
999376	SR 155	47.11	C	Smith Cr	51	33		1.1	RND	CST	1.22	1.22	22.7	0	1.63			
999378	SR 155	52.13	C	Armstrong Cr trib	51.0036	0		1.2	RND	CST	0.61	0.61	17.3		4.1			
999378	SR 155	52.13	C	Armstrong Cr trib	51.0036	0		2.2	RND	CST	0.61	0.61	17.1		4.5			
998314	SR 155	53.96	C	unnamed trib	50	67		1.1	RND	CST	0.61	0.61	22.5	0	3.6			
993992	SR 155	60.76	C	Onak Cr	49.0138	67	6.47	1.2	RND	PCC	1.22	1.22	19.6	0	1.8	4285	2373	7029

Appendix IB. WSDOT North Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
993992	SR 155	60.76	C	Omak Cr	49.0138	67	6.47	2.2	RND	PCC	0.91	0.91	16.9	0.37	1.7	4285	2373	7029
993993	SR 155	60.92	C	Trail Cr	49.0179	33	9.42	1.1	RND	PCC	1.22	1.22	17.3	0	2.1	11310	7799	15742
993995	SR 155	62.41	C	Omak Cr trib	49.0173	0	3.48	1.1	RND	PCC	0.91	0.91	33.6	0.2	5.86	1955	904	1830
993997	SR 155	65.05	C	Clark Cr	49.0165	0	6.49	1.1	RND	CST	0.76	0.76	34.3	0.42	3.23	2818	1222	2366
993998	SR 155	65.59	C	Swimptkin Cr	49.0160	0	10.85	1.1	RND	CST	0.91	0.91	21.2	0.19	3.29	6467	13748	18455
992845	SR 155	66.94	C	Stapaloop Cr	49.0152	33	9.58	1.1	RND	CST	1.9	1.9	45.5	0.46	2.3	20221	10545	21629
990288	SR 155	75.81	C	Mission Cr	49.0139	0	6.67	1.1	BOX	CPC	2.45	2.45	42.9	1.02	9.2	8773	682	2645
997831	SR 173	2.93	C	Dry Cr	50	0		1.1	RND	SPS	3.05	3.05	73.4	5.2	5.77	141		
994050	SR 173	11.8	C	Swamp Cr	49.0002	67		1.2	RND	CST	1.52	1.52	28.1	0.37	0.8			
994050	SR 173	11.8	C	Swamp Cr	49.0002	67		2.2	RND	CST	1.52	1.52	28.2	0.56	0.6			
990993	SR 243	25.29	C	Columbia R trib	41	0		1.1	RND	CST	1.07	1.07	22.9	0.46	8	30		
991760	SR 243	28.18	C	Sand Hollow Cr	41.2151	67	13.25	1.1	RND	CST	1.83	1.83	34	0		6666	1790	8819
995057	US 2	56.86	C	Tye R trib	07	0		1.1	RND	CST	0.61	0.61	53.8	0.24	5.3	167		
995037	US 2	57.66	C	Tye R trib	07	0		1.1	RND	CST	0.61	0.61	47.2	0.2	6.5	61		
995038	US 2	57.8	C	Tye R trib	07	67		1.1	RND	PVC	0.74	0.74	45.6	0	1.8			
995051	US 2	58	C	Tye R trib	07.1695	0		1.1	RND	PCC	0.91	0.91	30.1	0.04	3	122		
995055	US 2	64.32	C	Tye R trib	07	0		1.1	BOX	CPC	1.3	1.3	49.5	0.65	19.7			
995056	US 2	64.46	C	Tye R trib	07.1716	0		1.1	BOX	CPC	1.85	1.85	56.2	0	11.8			
603013	US 2	78.39	C	Nason Cr trib	45.0907	0		1.1	RND	PCC	0.46	0.46	20.8	0.06	3.57			
992753	US 2	80.58	C	Nason Cr trib	45.0901	0		1.1	RND	CST	0.61	0.61	27.6	0	0.29			
992755	US 2	82.06	C	Nason Cr trib	45	0	4.23	1.1	RND	CST	0.91	0.91		1.5		1100	632	1025
996888	US 2	107.43	C	Wenatche R trib	45.0214	0		1.1	OTH	OTH	1.9	0.45	115.9	0	5.21	125		
996890	US 2	111.46	C	Wenatchee R trib	45.0072	0		1.1	ARCH	CST	1.84	1.17	37.5	3.5	0.99			
990517	US 2	136.45	C	unnamed pond	44	33		1.1	RND	PCC	0.61	0.61		0		35		5075
998309	US 2	146.02	C	Pine Canyon	44	0		1.1	RND	SPS	3.05	3.05	178.7	0.32	8.6			
991948	US 97	152.95	C	Mill Cr	39.1188	0	6.11	1.1	RND	PCC	0.91	0.91	111.9	0.37	5.41	3075	1842	2262
998755	US 97	158.16	C, FI	Hovey Cr	39.1162	33		1.1	RND	CST	1.45	1.45	33.9	0.06	3			
990202	US 97	158.32	C, FI	Iron Cr	39.1209	67		1.1	SQSH	SPS	2.57	1.81	24	0	3.5			
990414	US 97	159.67	C	Swauk Cr	39.1157	0	10.74	1.1	SQSH	SPS	2.72	1.86	36.1	0.97	2.05	5402	5874	9814
990444	US 97	164.7	C	Tronsen Cr	45.0346	0	5.61	1.2	RND	PCC	0.61	0.61	67.1	0.6	5	1330	563	1348
990444	US 97	164.7	C	Tronsen Cr	45.0346	0	5.61	2.2	RND	PCC	0.61	0.61	67.1	0.09	5	1330	563	1348
990445	US 97	165.77	C	Tronsen Cr	45.0346	0	7.5	1.1	RND	CST	1.07	1.07	36.6	0.24	4.5	3030	2544	4316
990446	US 97	166.23	C	Tronsen Cr	45.0346	0	8.12	1.1	RND	CST	1.07	1.07	30.5	0.52	3.5	3110	2774	5297
993143	US 97	172.85	C	Peshastin Cr trib	45	0		1.1	RND	CST	1.22	1.22	26	1.07	1.2	128		
990411	US 97	205.1	C	Swakane Cr	46	33	6.57	1.1	RND	OTH	2.13	2.13	56	0	2.99	2040	1657	3130
999326	US 97	207.63	C	Tenas George Canyon	46	0		1.1	RND	OTH	0.91	0.91	21.5	0	3.9			
997549	US 97	216.66	C	unnamed pond	44	67		1.1	RND	PCC	0.61	0.61	27.8	0	0.07			
997551	US 97	218.38	C	unnamed pond	44	67		1.1	RND	PCC	0.91	0.91	32	0	0.87			
997552	US 97	218.66	C	unnamed pond	44	67		1.1	RND	PCC	0.61	0.61	30.5	0	0.39			
999330	US 97	219.63	C	McKinstry Canyon	46.0378	0		1.1	RND	CST	1.22	1.22	40.8	0.6	3.3			
992045	US 97	220.76	C	Byrd Canyon Cr	46.0380	33	12.68	1.1	RND	PCC	0.91	0.91	48.3	0	3.26	3700	9181	2134
992043	US 97	222.02	C	Oklahoma Gulch	46.0002	0	12.79	1.2	RND	OTH	1.22	1.22	44.3	0	3.99	2156	262	1559
992043	US 97	222.02	C	Oklahoma Gulch	46.0002	0	12.79	2.2	RND	OTH	1.22	1.22	44.3	0	3.87	2156	262	1559
997559	US 97	226.49	C	unnamed pond	44	33		1.1	RND	PCC	0.61	0.61	34.4	0	0.06			

Appendix IB. WSDOT North Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
997564	US 97	232.94	C	Columbia R trib	44	0		1.1	ELL	SPA	2.59	3.43	44	0.86	6.56			
997566	US 97	235.3	C	Beebe Cr	47	33		1.1	RND	CST	1.22	1.22	43.5	0.08	2.13			
997567	US 97	235.65	C	Columbia R trib	47	33		1.1	RND	CAL	0.91	0.91	34.3	0.12	2.65	283		
990523	US 97	246.86	C	unnamed pond	47	67		1.1	RND	CST	0.61	0.61	38.7	0	0.88			
992050	US 97	256.94	C	Indian Dan Canyon	49	0		1.1	RND	SST	1.4	1.4	24.7	1.55	0.03			
992051	US 97	260.28	C	Swamp Cr	49.0002	0		1.1	RND	PCC	1.24	1.24		0				
993915	US 97	261.24	C	Columbia R trib	49	0	5.17	1.1	BOX	CPC	2.44	2.42	91.9	0	2.2	1320	80	8884
990217	US 97	299.02	C	Johnson Cr	49.0202	0	12.89	1.1	SQSH	CST	1.87	1.07	29.5	0.4	4.3	11104	1929	10566
960240	US 97	299.04	D	Johnson Cr	49.0202	33												
960241	US 97	299.05	D	Johnson Cr	49.0202	0												
993964	US 97	324.67	C	Mosquito Cr	49.0321	67		1.1	RND	PCC	2.13	2.13	16.7	0.04	1.4			
997643	US 97	325.87	C	Okanogan R trib	49	67		1.1	RND	PCC	1.22	1.22	28.1	0	2.88			
993971	US 97	328.16	C	Whistler Canyon Cr	49	33	4.44	1.1	RND	PCC	0.91	0.91	35.3	0	1.4	2890	1122	919

¹Field Codes**Codes Used for Culvert Shape**

ARCH - bottomless arch
 BOX - rectangular or square
 ELL - ellipse
 OTH - other
 RND - round
 SQSH - squash (pipe arch)

Codes Used for Culvert Materials

CAL - corrugated aluminium
 CMP - corrugated metal pipe
 CPC - cast in place concrete
 CST - corrugated steel
 OTH - other

Feature Type

B - bridge
 C - culvert
 D - dam
 DL - dike/levee
 EC - erosion control
 F - fill/puncheon
 FD - fill/debris
 FI - fishway
 FL - flume

²The culvert # identifies individual culverts at multiple stream crossings. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991040	I-5	86.2 C		Chehalis R trib	23	33		1.1 RND	PCC	PCC	1.22	1.22	62.8	0	0.08			
991499	I-5	94.57 C		Beaver Cr trib	23	33	7.2	1.1 RND	PCC	PCC	1.22	1.22	64.5	0	1.2	743	0	787
991659	I-5	98.11 C		Salmon Cr trib	23.0686	Unknown		1.1 RND	OTH	OTH	0.91	0.91	60.6	0	0.3			
997706	I-5	104.13 C		Deschutes R trib	13	0	8.32	1.1 RND	OTH	OTH	0.76	0.76	197	0.38		636	172	364
990292	I-5	105.52 C		Moxlie Cr	13.0027	67	16.16	1.1 RND	CST	CST	1.22	1.22	88.5	0	0.4	2341	378	5064
990199	I-5	105.85 C		Indian Cr	13.0026	0	28.26	1.1 RND	CST	CST	0.91	0.91	100.6	0	3	5026	1624	18204
998888	I-5	109.19 C		College Cr	13	33		1.1 RND	OTH	OTH	0.76	0.76	220	0	0.55	6		
997705	I-5	109.62 C, FI		College Cr	13	33	12.46	1.1 RND	PCC	PCC	0.61	0.61	72.4	0.19	1.3	1330	319	749
933313	I-5	115.77 C		unnamed Red Salmon Cr trib	11	0	1.67	1.1 RND	PCC	PCC	0.46	0.46	59.3	0	18.61	23	2	1
990295	I-5	122.41 C		Murray Cr	12.0019	33		1.2 RND	PCC	PCC	0.91	0.91	61	0	0.02			
990295	I-5	122.41 C		Murray Cr	12.0019	33		2.2 RND	PCC	PCC	0.91	0.91	60.5	0	0.05			
933186	I-5	134.33 C		Puyallup R trib	10	0	2.82	1.1 BOX	PCC	PCC	0.51	0.48	1876	1.2		36	4	22
997231	SR 3	2.11 C		Goldsbrough Cr trib	14	0		1.1 RND	PCC	PCC	0.76	0.76	153	0		85		
997235	SR 3	4.67 C		Oakland Bay trib	14	0	10.63	1.1 RND	PCC	PCC	0.83	0.83	56.4	0	4.9	420	32	310
997365	SR 3	7.16 C		Oakland Bay trib	14.0050	0	12.59	1.1 RND	PCC	PCC	0.46	0.46	17.5	0.6	6.6	661	248	1351
997368	SR 3	7.59 C		Oakland Bay trib	14	0	7.46	1.1 RND	PCC	PCC	0.46	0.46	17.2	0.32	4.54	281	70	146
997369	SR 3	7.96 C		Oakland Bay trib	14	33		1.1 RND	CAL	CAL	0.61	0.61	31.7	0.2	2.5	88		
997371	SR 3	8.28 C		Oakland Bay trib	14	33	20.6	1.1 RND	PCC	PCC	0.61	0.61	12.6	0.24	2.14	429	372	2314
991987	SR 3	21.29 C		Case Inlet trib	14	33		1.1 RND	CST	CST	0.45	0.45	40.4	0	3.7	29		
991795	SR 3	23.94 C		Devereaux Cr trib	14	0	12.79	1.1 RND	PCC	PCC	0.6	0.6	24.2	0.1	4.8	1539	427	2143
991796	SR 3	24.71 C		Lynch Cove trib	14	0		1.1 RND	PCC	PCC	0.46	0.46	36	1.07	8			
996732	SR 3	24.91 C		Hood Canal trib	15	0	2.49	1.1 RND	PCC	PCC	0.3	0.3		0.05		137	17	43
996734	SR 3	25.15 C		Hood Canal trib	15.0123	0	10.63	1.1 RND	PCC	PCC	0.61	0.61	16.1	0.23	7.31	880	429	575
991797	SR 3	25.31 C		Sweetwater Cr	15.0504	0	18.74	1.1 BOX	PCC	PCC	2.45	1.65	13.5	0.06	0.66	1096	861	1479
999626	SR 3	26.26 C		Mindy Cr	15	0	13.49	1.1 RND	CST	CST	0.3	0.3	130	0		728	534	1059
991991	SR 3	26.4 C		Union R trib	15.0504	0	21.28	1.1 OTH	PCC	PCC	0.53	0.53	128	0	3.36	1976	1239	2558
991728	SR 3	29.63 C		Union R trib	15.0512	0	9.7	1.1 BOX	PCC	PCC	1.22	1.22	13.7	0.34	2.5	915	810	1162
996508	SR 3	31.36 C		Ostrich Cr	15.0226	0	20	1.1 RND	PCC	PCC	1.07	1.07	359.2	1.65	2.2	2745	1796	3350
990168	SR 3	32.1 C		Gorst Cr	15.0216	33	19.08	1.1 BOX	CPC	CPC	1.25	1.25	49.7	0.22	1.95	1483	403	14275
991585	SR 3	34.27 C		Gorst Cr trib	15.0217	33	19.54	1.1 RND	PCC	PCC	0.91	0.91	68.7	0	4.7	2647	2268	5291
991995	SR 3	36.1 C		Wright Cr	15	33	18.45	1.1 BOX	CPC	CPC	2.45	2.45	68.7	0	0.32	3848	1763	15967
991994	SR 3	36.51 C		Sinclair Inlet trib	15	0	4.08	1.1 OTH	CPC	CPC	1.23	1.23	111.8	0.34	5.46	241	11	54
996798	SR 3	39.13 C		Dyes Inlet trib	15.0228	0	3.97	1.1 RND	CST	CST	0.61	0.61	156.3	2.62	5.71	238	55	49
996796	SR 3	39.45 C		Dyes Inlet trib	15	0		1.1 RND	CST	CST	0.61	0.61	85.2	0.57	3.8	137		
996741	SR 3	40.37 C		Dyes Inlet trib	15	67		1.1 RND	PCC	PCC	0.91	0.91	87.4	0	0.73	200		
15.0229 0.10	SR 3	40.96 C, FI		Chico Cr	15.0229	67	48	1.2 BOX	CPC	CPC	2.44	2.44	122.3	0	0.4	35048	60475	265684
15.0229 0.10	SR 3	40.96 C, FI		Chico Cr	15.0229	67	48	2.2 BOX	CPC	CPC	2.45	2.45	119.7	0.35	0.4	35048	60475	265684
991907	SR 3	40.97 C		Chico Cr trib	15.0240	0	16.94	1.1 RND	CST	CST	0.91	0.91	14.6	0.5	2.2	1830	947	1182
996795	SR 3	40.99 C		Chico Cr trib	15.0240	0	12.96	1.1 RND	CAL	CAL	0.91	0.91	53.8	0	2.56	1480	822	1031
996794	SR 3	41.08 C		Chico Cr trib	15.0240	0	11	1.1 RND	OTH	OTH	0.61	0.61	129.9	0	3.8	1276	715	985
996742	SR 3	41.52 C, FI		Dyes Inlet trib	15.0241	0	10.93	1.1 RND	CST	CST	1.07	1.07	99.8	0	6	1736	1465	1702
996745	SR 3	41.81 C, FI		Dyes Inlet trib	15	0		1.1 RND	CST	CST	0.61	0.61	93.1		11.4	541		
996747	SR 3	42.21 C, FI		Dyes Inlet trib	15.0243	0	6.56	1.1 RND	CST	CST	0.91	0.91	88.2	0.6	9.66	758	712	542
996748	SR 3	42.56 C		Dyes Inlet trib	15.0244	0	10.53	1.1 RND	OTH	OTH	1.22	1.22	223.9	0	7.3	1528	2412	1639

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
996856	SR 3	43.58	C	Koch Cr	15.0245	0		1.1	OTH	CST	1.07	1.07		0.7		115		
990708	SR 3	44.62	C	Strawberry Cr trib	15.0247	0	15.89	1.1	RND	CST	1.22	1.22	93.9	1	3.5	705	706	843
15.0246	SR 3	44.8	C, FI	Strawberry Cr	15.0246	67	19.15	1.1	RND	CPC	1.68	1.68				1998	2014	3525
993013	SR 3	46.09	C	WF Clear Cr trib	15	0	9.23	1.1	RND	CAL	0.61	0.61	112.7	0	5.6	516	10	3098
996801	SR 3	46.82	C	Clear Cr trib	15	0	5.19	1.1	RND	OTH	0.46	0.46	101	0.94	9.77	500	6	142
996803	SR 3	47.72	C, FI	Clear Cr trib	15.0254	33	14.22	1.1	RND	CST	1.37	1.37	66.5	0	4.06	817	865	1237
996804	SR 3	49.48	C	Big Scandia Cr	15.0280	33	16.5	1.1	RND	CST	1.37	1.37	66.4	0.25	1.3	1924	825	1874
991241	SR 3	50.85	C	SF Johnson Cr	15.0282	0	13.5	1.1	RND	CST	0.91	0.91	182.9	0.18	8	1636	790	3581
990218	SR 3	50.94	C	MF Johnson Cr	15.0283	0	15.79	1.1	RND	CST	1.52	1.52	121.9	0	5	625	576	930
991744	SR 3	52.21	C	Johnson Cr	15.0283	0	9.06	1.1	RND	CST	0.92	0.92	67.4	0.22	2.87	1050	346	333
991242	SR 3	57.23	C	Kinman Cr trib	15	0	14.71	1.1	RND	PCC	0.76	0.76	27.3	0	2.64	1730	871	4012
991613	SR 3	57.87	C	Hood Canal trib	15	0	6.07	1.1	RND	PCC	0.61	0.61	31.7	0.17	2.91	346	169	268
991240	SR 3	58.21	C	Hood Canal trib	15.0367A	0	9.16	1.1	RND	PCC	0.61	0.61	27.4	0.03	4	1833	624	1386
990395	SR 3	58.49	C	Spring Cr	15.0364	0	13.37	1.1	RND	PCC	0.91	0.91	33.2	0	1.79	1441	1094	1578
996810	SR 3	59.39	C	Hood Canal trib	15.0363	0		1.1	RND	OTH	0.61	0.61	80.9	0	5.68	115		
991612	SR 3	59.52	C	Hood Canal trib	15.0361	0	8.14	1.1	RND	PCC	0.61	0.61	40.1	0	6.4	955	511	862
996811	SR 3	59.55	C	unnamed trib	15.0362	0	6.68	1.1	RND	PCC	0.61	0.61	36.6	0	5.17	640	250	392
931151	SR 7	17.05	C	Nisqually R trib	11	33		1.1	RND	PCC	0.46	0.46	12.4	0	2.7			
997605	SR 7	17.38	C	Alder Lk trib	11	0		1.1	RND	PCC	0.91	0.91	29.2	0	9	31		
997609	SR 7	18.28	C	Alder Lk trib	11	33		1.1	RND	PCC	0.61	0.61	24.6	0	2.7	7		
997612	SR 7	18.5	C	Alder Lk trib	11	0		1.1	RND	PCC	0.76	0.76	27	0	6	33		
990677	SR 7	19.15	C	Alder Lk trib	11	0		1.1	RND	PCC	0.76	0.76	35.8	0.48	12.9			
997615	SR 7	19.79	C	Alder Lk trib	11	33		1.1	RND	PCC	0.61	0.61	35.7	0	7.8	185		
990679	SR 7	21.3	C	Alder Lk trib	11.0136	33		1.2	RND	PCC	0.91	0.91	36.6	0.05	4			
990679	SR 7	21.3	C	Alder Lk trib	11.0136	33		2.2	RND	PCC	0.91	0.91	36.6	0.05	4			
990680	SR 7	21.41	C	Alder Lk trib	11	33		1.1	RND	PCC	0.61	0.61	25.2	0.32	2.94			
990681	SR 7	21.58	C	Alder Lk trib	11	67		1.1	RND	PCC	0.91	0.91	57.9	0.02	1.8			
990682	SR 7	21.68	C	Alder Lk trib	11.0133	67		1.1	BOX	PCC	1.52	1.52	37.3	0	4.7			
990683	SR 7	22.83	C	La Grande Reservoir trib	11.0130	33		1.1	RND	PCC	0.76	0.76	25.9	0.2	3			
990684	SR 7	23.32	C	La Grande Reservoir trib	11.0129	0		1.1	BOX	GPC	1.28	0.93	48	2	12.44	6		
990685	SR 7	24.83	C	Nisqually R trib	11.0128	0		1.1	RND	CST	0.76	0.76	26	0.5	7	0		
997623	SR 7	28.02	C	Mashei R trib	11	33		1.1	RND	SST	0.61	0.61	36.1	0.32	0.5	75		
990686	SR 7	32.4	C	Silver Lk trib	11	67		1.1	RND	PCC	0.46	0.46	18.4	0.12	0.59			
997628	SR 7	33.52	C	Cranberry Lk trib	11	67		1.1	RND	PCC	0.46	0.46	13.4	0	2.31	136		
991225	SR 7	37.5	C	South Cr trib	11.0032	0	23.43	1.1	SQSH	CST	1.4	1	23.6	0.3	2.8	5607	277	10932
990688	SR 7	38.12	C	South Cr trib	11	67	10.11	1.1	RND	PCC	0.61	0.61	23.9	0	0.51	2381	287	3412
996274	SR 7	58.34	C	Commencement Bay trib	10	33		1.1	RND	PCC	0.46	0.46	1355	0.59				
991063	SR 8	0.1	C	Cloquallum Cr trib	22	33	9.5	1.1	RND	CST	0.91	0.91	72.8	0	1.5	234	0	656
993722	SR 8	1.02	C	Cloquallum Cr trib	22.0000	0		1.1	RND	PCC	0.61	0.61	52.3	0	0.78			
993723	SR 8	1.27	C	Cloquallum Cr trib	22	67	9.88	1.1	RND	PCC	0.46	0.46	50.8	0	0.6	767	3	1420
993727	SR 8	1.37	C	Cloquallum Cr trib	22	33	8.45	1.1	RND	PCC	0.46	0.46	51.1	0	0.08	155	0	196
993724	SR 8	3.16	C	Wildcat Cr trib	22	0	11	1.1	RND	CST	1.3	1.3	62.3	0	5.5	2269	359	1625
993725	SR 8	3.51	C	Wildcat Cr trib	22	0	7	1.1	RND	CST	0.91	0.91	51.8	0	10	873	68	307
991066	SR 8	3.72	C	unnamed pond	22	0	10.06	1.1	RND	CST	0.76	0.76	72	0.38	0.3	418	0	4339

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990770	SR 8	6.15 C		EF Wildcat Cr trib	22	33	8.8	1.1 RND	GST	GST	0.91	0.91	46.1	0	0.6	359	0	438
990773	SR 8	9.1 C		Mox Chehalis Cr trib	22	33	20.63	1.1 BOX	CPC	CPC	1.22	1.22	42.8	0	0.81	2481	1179	2311
993728	SR 8	10.12 C		Mox Chehalis Cr trib	22	33	12.22	1.1 RND	PCC	PCC	0.61	0.61	26.4	0	0.87	671	243	3581
993729	SR 8	10.12 C		Mox Chehalis Cr trib	22	33	12.21	1.1 RND	PCC	PCC	0.61	0.61	16.8	0	2.26	649	222	3564
990693	SR 8	12.15 C		Kennedy Cr trib	14	0	3.61	1.1 BOX	PCC	PCC	1.22	0.91	30.5	1.28	3	1770	1550	2205
990694	SR 8	12.16 C		Kennedy Cr trib	14	0	3.61	1.1 BOX	PCC	PCC	1.22	0.91	31.1	0	6	1770	1550	2205
997197	SR 8	13.25 C		Kennedy Cr trib	14	0	2.23	1.1 BOX	PCC	PCC	2.3	1.22	38.1	0	1.79	1400	209	615
990695	SR 8	13.25 C		Kennedy Cr trib	14	0	2.23	1.1 BOX	PCC	PCC	2.3	1.22	50.6	0	6.6	1345	209	612
997198	SR 8	13.51 C		Kennedy Cr trib	14	0	3.23	1.2 BOX	PCC	PCC	1.52	1.22	43.7	0.29	4.41	1354	982	1361
990692	SR 8	13.51 C		Kennedy Cr trib	14	0	3.54	1.2 BOX	PCC	PCC	1.52	1.22	42	0.12	4.77	1354	982	1361
997198	SR 8	13.51 C		Kennedy Cr trib	14	0	3.23	2.2 BOX	PCC	PCC	1.52	1.22	43.7	0.29	4.41	1354	982	1361
990692	SR 8	13.51 C		Kennedy Cr trib	14	0	3.54	2.2 BOX	PCC	PCC	1.52	1.22	42	0.2	4.77	1354	982	1361
990696	SR 8	14.09 C		Kennedy Cr trib	14	33	2.72	1.1 BOX	PCC	PCC	1.83	1.22	51	0	1.27	1217	1320	707
990697	SR 8	14.8 C		Kennedy Cr trib	14	67	1.65	1.2 RND	PCC	PCC	0.76	0.76	48.2	0.03	0.7	395	285	143
990697	SR 8	14.8 C		Kennedy Cr trib	14	67	1.65	2.2 RND	PCC	PCC	0.76	0.76	48.1	0	0.87	395	285	143
990698	SR 8	14.93 C		Kennedy Cr trib	14	33	1.74	1.1 RND	PCC	PCC	0.76	0.76	60.4	0	1.2	416	19	339
990700	SR 8	15.19 C		Kennedy Cr trib	14	0	2.94	1.1 BOX	PCC	PCC	1.83	0.91	60.1	0	5.21	1260	1168	962
997201	SR 8	15.35 C		Kennedy Cr trib	14,0012	67		1.1 BOX	PCC	PCC	1.83	1.22	50.6	0	0.71			
997206	SR 8	17.07 C		Perry Cr trib	14	33		1.1 RND	PCC	PCC	0.61	0.61	47.8	0.18	3.62	75		
990703	SR 8	17.17 C		Perry Cr trib	14	33	3.81	1.1 BOX	PCC	PCC	1.83	1.22	61	0	2.5	2483	1739	3045
997207	SR 8	18.28 C		Perry Cr trib	14	67		1.1 RND	PCC	PCC	0.91	0.91	16.5	0	1.58	188		
990704	SR 8	18.28 C		Perry Cr trib	14	0		1.1 RND	PCC	PCC	0.91	0.91	24.9	0.96	12.76	156		
990705	SR 8	18.61 C		Perry Cr trib	14	0		1.1 RND	PCC	PCC	0.91	0.91	92.3	0.3	11.39	30		
990706	SR 8	18.99 C		Perry Cr trib	14	33		1.1 RND	PCC	PCC	0.91	0.91	15.2	0.75	2.5	149		
990707	SR 8	18.99 C		Perry Cr trib	14	0		1.1 RND	PCC	PCC	0.91	0.91	47.6	1	12.32	90		
991939	SR 16	14.63 C		McCormick Cr trib	15	0	21.29	1.1 RND	PCC	PCC	0.76	0.76	131.1	0	4.04	1791	876	1958
991940	SR 16	14.65 C		McCormick Cr	15,0065	67	15.34	1.1 RND	PCC	PCC	1.37	1.37	44.4	0	0.45	2283	1040	3187
991941	SR 16	14.86 C		McCormick Cr	15,0065	33	21.42	1.1 RND	OTH	OTH	1.22	1.22	67.1	0		2401	1159	3305
991942	SR 16	15.02 C		McCormick Cr trib	15,0066	0	24.47	1.1 RND	GST	GST	0.46	0.46	78.6	0	6.96	1859	765	5252
934541	SR 16	15.16 C		McCormick Cr trib	15,0000	0		1.1 RND	PCC	PCC	0.46	0.46	68	0	6.35			
991944	SR 16	15.21 C		McCormick Cr	15,0065	33	32.41	1.1 RND	GST	GST	1.52	1.52	57.1	0	1.26	4851	2021	9074
105 K051618a	SR 16	16.59 C		Goodnough Cr	15,0063	0	20.96	1.1 RND	GST	GST	1.25	1.25	141.6	0.65	6.75	2211	1244	4437
15.0060 1.00	SR 16	17.8 C, FI		Purdy Cr	15,0060	67	23.37	1.1 RND	CMP	CMP	1.83	1.83	165.8	0.3	1.61	9012	7271	211998
996760	SR 16	19.28 C		Burley Cr trib	15	0		1.1 RND	OTH	OTH	0.61	0.61	73.3	0.82	9.84	115		
991866	SR 16	19.54 C		Burley Cr trib	15	0	9.22	1.1 RND	PCC	PCC	0.91	0.91	84.4	0.66	7.37	888	206	889
991516	SR 16	20.36 C, FI		Burley Cr trib	15	0	9.83	1.1 RND	PCC	PCC	1.07	1.07	85.9	0	5.07	1168	1059	1011
991867	SR 16	20.44 C, FI		Burley Cr trib	15	33	7.19	1.1 RND	PCC	PCC	0.91	0.91	80	0	4.75	1096	497	454
996752	SR 16	21.58 C		Burley Cr trib	15	0	9.77	1.1 RND	OTH	OTH	1.07	1.07	91.5	0	4.19	1070	405	984
15.0056 4.50	SR 16	22.7 C, FI		Burley Cr	15,0056	0	14.65	1.1 RND	PCC	PCC	1.37	1.37	146.7	0	0.17	2265	1232	4956
996755	SR 16	25.24 C		Blackjack Cr	15,0203	67	32.03	1.1 BOX	PCC	PCC	2.74	2.44	41.4	0	0.31	25986	47446	104388
990038	SR 16	25.3 C		Blackjack Cr	15,0203	67	31.75	1.1 BOX	PCC	PCC	2.74	2.44	69.5	0	0.94	23132	6249	99383
996756	SR 16	25.3 C		Blackjack Cr	15,0203	67	31.75	1.1 BOX	PCC	PCC	2.74	2.44	43.4	0	0.77	23051	6150	99283
996754	SR 16	26.61 C		Ross Cr trib	15	33		1.1 RND	GST	GST	0.91	0.91	55.3	0	0.29			
990357	SR 16	26.8 C		Ross Cr	15,0209	33	11.04	1.1 RND	PCC	PCC	0.76	0.76	106.5	0.19	0.82	420	4	1670

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990270	SR 16	27.1 C		Ross Cr trib	15.0210	0	26.45	1.1 RND	GST	GST	1.22	1.22	140.2	0.1	2.5	4778	2891	12226
934154	SR 16	27.49 C		Sinclair Inlet trib	15	0		1.1 RND	PCC	PCC	0.61	0.61	89.4	0.2	19.02			
991670	SR 16	28.6 C		Sinclair Inlet trib	15.0215	0	13.91	1.1 RND	OTH	OTH	0.76	0.76	162	0		2192	1192	1594
995526	SR 19	2.49 C		Ludlow Cr trib	17	33		1.1 RND	PCC	PCC	0.46	0.46	17.9	0	3.1	120		
995529	SR 19	2.93 C		Ludlow Cr trib	17	33		1.1 RND	OTH	OTH	0.38	0.38	18	0	4.2			
995532	SR 19	3.48 C		Ludlow Cr trib	17	33		1.1 RND	PCC	PCC	0.46	0.46	22.3	0.1	5.6			
990711	SR 19	4.3 C, FI		Swansville Cr	17.0195	0	29.75	1.1 RND	PCC	PCC	0.61	0.61	29.4	0.22	3.4	3699	810	4980
991579	SR 19	6.82 C		EF Chimacum Cr trib	17.0000	0	16.26	1.1 RND	PCC	PCC	0.61	0.61	19.9	0	5.48	820	97	376
995743	SR 20	0.65 C		Discovery Bay trib	17.0218	0	10.36	1.1 BOX	CPC	CPC	0.92	0.92	60.7	1.7	9	1208	342	1110
995745	SR 20	1.12 C		Discovery Bay trib	17	0		1.1 BOX	CPC	CPC	0.92	0.92	32.4	0.53	15.9	40		
995748	SR 20	1.39 C		Discovery Bay trib	17.0217	0		1.1 BOX	CPC	CPC	0.92	0.92		0.97		59		
995753	SR 20	3.67 C		Discovery Bay trib	17	0	7.41	1.1 BOX	CPC	CPC	0.92	0.92	44.2	1	2.6	1027	216	335
162173	SR 104	4.25 C		Barnhouse Cr trib	17.0000	0	9.28	1.1 RND	CST	CST	0.76	0.76	93.8	0.2	4.08	889	424	758
991978	SR 104	5.75 C		Ludlow Cr trib	17	33		1.1 RND	CAL	CAL	0.8	0.8	52.8	0	1.2		0	26831
990375	SR 104	10.36 C		Shine Cr	17.0181	67	24.03	1.1 RND	CST	CST	1.45	1.45	49.7	0.1	0.46	3166	1726	14910
991983	SR 104	12.05 C		Hood Canal trib	17	0		1.1 RND	CST	CST	0.63	0.63	65.5	0	10.2	115		
162192	SR 104	12.57 C		Squamish Harbor trib	17	0	10.5	1.1 RND	CST	CST	0.91	0.91	103.3	0	7.6	932	469	1082
990710	SR 104	16.55 C		Hood Canal trib	15	0	17.21	1.1 RND	PCC	PCC	0.91	0.91	69.6	0	6.17	1061	97	6186
992199	SR 104	17.67 C		Ladine DeCouteaux Cr	15	Unknown		1.1 BOX	CPC	CPC	0.91	0.91	28	0	2.11			
992200	SR 104	17.82 C		Port Gamble trib	15	33	4.94	1.1 BOX	PCC	PCC	0.91	0.91	35	0.29	1.86	527	131	87
992201	SR 104	19.12 C		Port Gamble trib	15	0	7.88	1.1 RND	PCC	PCC	0.76	0.76	20.5	0.34	6.08	409	177	380
992202	SR 104	19.39 C		Port Gamble trib	15	0	7.06	1.1 RND	PCC	PCC	0.76	0.76	31.5	0	4.8	531	48	372
996729	SR 104	22.23 C		Grovers Cr trib	15.0304	33	15.39	1.1 RND	PCC	PCC	0.61	0.61	30	0	-0.06	1875	479	3624
992207	SR 104	22.95 C		Carpenter Cr	15.0309	0	20.92	1.1 BOX	CPC	CPC	0.91	0.91	22.8	0	1.49	2791	1838	3113
992208	SR 104	23.37 C		Appletree Cove trib	15	0	4.37	1.1 RND	PCC	PCC	0.45	0.45	24.9	0.41	1.69	198	0	34
991295	SR 105	31.11 C		South Bay trib	22	Unknown		1.1 RND	PCC	PCC	0.91	0.91	21.1	0	0.9	350	0	12050
991301	SR 105	31.38 C		South Bay trib	22.1321	33	1.78	1.1 RND	PCC	PCC	1.07	1.07	21.2	0.1	1.7	620	0	233
993007	SR 105	31.79 C		South Bay trib	22	0		1.1 RND	PCC	PCC	0.65	0.65	29.4	0	1.5	150		
990905	SR 105	36.26 C		South Bay trib	22	33		1.1 RND	PCC	PCC	0.61	0.61	48.4	0	1.5	34		
980275	SR 105	38.1 C		Johns R trib	22	0	10.36	1.1 RND	PCC	PCC	0.61	0.61	38.1	0	5	420	222	567
980274	SR 105	38.28 C		Johns R trib	22	33		1.1 RND	PCC	PCC	0.46	0.46	22.9	0	2	124	0	0
994782	SR 105	38.9 C		Grays Harbor trib	22.1269	0		1.1 RND	PCC	PCC	0.76	0.76	59.5	0	2.5	181		
991642	SR 105	39.77 C		O'Leary Cr trib	22	33	8.74	1.1 RND	PCC	PCC	0.91	0.91	26.8	0	1.4	468	10	856
991298	SR 105	40.5 C		South Bay trib	22	0	6.45	1.1 RND	PCC	PCC	1.07	1.07	73.2	0.24	3	228	58	170
991302	SR 105	41.76 C		Grays Harbor trib	22	0		1.1 RND	PCC	PCC	0.46	0.46	23.2	0.34		77		
991297	SR 105	44.56 C		Grays Harbor trib	22	33	5.83	1.2 RND	PCC	PCC	0.91	0.91	22.6	0	0.4	860	0	93
991297	SR 105	44.56 C		Grays Harbor trib	22	33	5.83	2.2 RND	PCC	PCC	0.91	0.91	23.2	0	0.9	860	0	93
996115	SR 106	2.07 C		unnamed Skokomish R trib trib	16	0	5.77	1.1 RND	PCC	PCC	0.61	0.61	14.5	0.3	4.14	318	12	116
996412	SR 106	2.33 EC		unnamed trib	16	0	3.71									522	47	100
996116	SR 106	2.36 C		Skokomish R trib	16	33	3.03	1.1 RND	PCC	PCC	0.46	0.46	12.3	0	1.54	528	48	100
996127	SR 106	3.39 C		Hood Canal trib	16	33		1.1 RND	PCC	PCC	0.61	0.61	10.6	0	3.38			
996383	SR 106	4.11 C		Hood Canal trib	16	0	5.95	1.1 RND	PCC	PCC	0.46	0.46	20	0.35	13.48	369	136	95
997163	SR 106	5.45 C		Hood Canal trib	14	33		1.1 RND	PCC	PCC	0.46	0.46		0.55	5	14		
997166	SR 106	7.64 C		Hood Canal trib	14	0	2.82	1.1 RND	OTH	OTH	0.3	0.3	14.3	0	6.4	300	69	34

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
997168	SR 106	7.71 C		Hood Canal trib	14	0	3.01	1.1 RND	PCC	PCC	0.46	0.46	13.1	1.14	6.6	404	93	45
997176	SR 106	9.7 C		Hood Canal trib	14	33		1.1 RND	PCC	PCC	0.46	0.46			6	9		
997182	SR 106	11.57 C		Hood Canal trib	14.0136	0	6.1	1.1 RND	PCC	PCC	1.22	1.22	15.2		0	6.92	825	760
990450	SR 106	12.3 C		Twano Cr	14.0134	67	21.6	1.1 BOX	CPC	CPC	1.22	1.22	12.3		0	3.1	3059	4104
991245	SR 106	13.84 C		Hood Canal trib	14.0131	0	12.54	1.1 BOX	OTH	OTH	1.22	1.22	16.4	3.06	1.34	490	390	361
997184	SR 106	14.61 C		Hood Canal trib	14.0130	33	9.19	1.1 RND	OTH	OTH	0.76	0.76	52.5		0	0.93	1369	784
115 MC190	SR 106	14.72 C		Mulberg Cr	14	33	10.86	1.1 RND	PCC	PCC	0.61	0.61	12	0.16	9.92	273	81	317
115 MC218	SR 106	19.57 C		Devereaux Cr	14.0124	0	21.96	1.1 BOX	OTH	OTH	1.23	0.92	11.1	0.9	3	4156	2364	6222
997260	SR 106	19.84 C		Hood Canal trib	14	33		1.1 RND	PCC	PCC	0.46	0.46	13.2		0	3.2		
993043	SR 107	0.79 C		Little North R trib	24	0	9.56	1.1 RND	GST	GST	0.75	0.75	30.9		0	3.2	744	203
993044	SR 107	1.23 C		Little North R trib	24	0		1.1 RND	PCC	PCC	0.6	0.6	32		2.2			
990911	SR 107	3.29 C		Preachers Sl trib	22	67		1.1 RND	PCC	PCC	0.61	0.61	19.5		0	1.23	80	
933360	SR 107	4.34 C		Chehalis R trib	22	0	4.39	1.1 RND	PCC	PCC	0.46	0.46	26.3	1.18	4.75	268	0	56
933361	SR 107	4.34 C		Chehalis R trib	22	0	4.39	1.1 RND	PCC	PCC	0.46	0.46	7.6		0	10.58	268	0
991727	SR 107	5.49 C		Chehalis R trib	22	0		1.1 RND	PCC	PCC	0.46	0.46	27.4	1	0	30		
993659	SR 108	0.18 C		EF Wildcat Cr trib	22	67	8	1.1 RND	PCC	PCC	0.76	0.76	16.4		0	1	192	0
997209	SR 108	4.27 C		MF Wildcat Cr trib	14	67		1.1 RND	PCC	PCC	0.61	0.61	15.5		0	2.59	109	
997210	SR 108	5.2 C		unnamed trib	14	0	16.43	1.1 RND	PCC	PCC	0.76	0.76	38.4	0.64	4.53	824	157	2958
991237	SR 108	5.5 C		Skookum Cr trib	14	0	13.13	1.1 RND	PCC	PCC	0.91	0.91	26		0	4.2	2814	1642
990385	SR 108	5.54 C		Skookum Cr trib	14.0020	67	15.9	1.1 BOX	GPC	GPC	1.86	1.86	25.4		0	0.35	490	811
991672	SR 108	7.62 C		Skookum Cr trib	14	0	10.58	1.1 RND	GST	GST	1.52	1.52	16.1	0.51	1	2325	3549	1774
990278	SR 108	8.89 C, FI		McDonald Cr	14.0023	33	27.13	1.1 BOX	PCC	PCC	1.84	1.22	19.2	0.94	0.31	5909	5753	8155
997224	SR 108	9.35 C		Kamilche Cr trib	14	67	4.53	1.1 RND	PCC	PCC	0.61	0.61	13.3		0	3.64	375	154
997225	SR 108	9.47 C		Kamilche Cr	14.0022	67	19.11	1.1 RND	SPS	SPS	1.52	1.52	22	0.15	0.41	2667	549	5611
997229	SR 108	11.37 C		Skookum Cr trib	14	67		1.1 RND	PCC	PCC	0.91	0.91	17.4		0	2.59	132	
990921	SR 109	2.71 C		Grays Harbor trib	22	67	4.23	1.1 RND	PCC	PCC	0.46	0.46	15.8		0	1.15	366	0
991835	SR 109	3.41 C		Grays Harbor trib	22	33	8.09	1.1 RND	PVC	PVC	0.61	0.61	42.4	0.12	1	321	83	728
994829	SR 109	3.47 C		Grays Harbor trib	22	67		1.1 RND	PVC	PVC	0.61	0.61	17.7	0.05	1.13			
991836	SR 109	4.46 C		Little Hoquiam R trib	22.0163	67	10.98	1.1 RND	PCC	PCC	0.91	0.91	18.2		0	0.82	3347	34
990932	SR 109	6.91 C, FI		Grass Cr trib	22	67	10.44	1.1 RND	GST	GST	0.61	0.61	28		0	1.96	1323	0
990934	SR 109	7.25 C		unnamed Grass Cr trib trib	22	Unknown		1.2 RND	OTH	OTH	0.46	0.46	28.7		0	0.41		
990934	SR 109	7.25 C		unnamed Grass Cr trib trib	22	Unknown		2.2 RND	OTH	OTH	0.46	0.46	28.7		0	0.31		
994806	SR 109	13.39 C		Kurtz Sl trib	22	33		1.1 RND	OTH	OTH	0.83	0.83	48.3		0	2.7	70	
990919	SR 109	17.81 C		Connor Cr trib	21.0000	67		1.1 RND	OTH	OTH	0.91	0.91	16.3		0	-0.49	240	
990920	SR 109	19.4 C		Connor Cr trib	21	67	11.5	1.1 RND	PCC	PCC	0.91	0.91	15.6		0	1.67	1806	0
997311	SR 109	21.12 C		Copalis R trib	21	33	6.46	1.1 RND	OTH	OTH	0.7	0.7	50		0		92	
997360	SR 109	24.23 C		Boone Cr trib	21	33	6.12	1.1 RND	PCC	PCC	0.91	0.91	16.6		0	3.3	99	22
997363	SR 109	24.56 C		Boone Cr trib	21	67	9.93	1.1 RND	GST	GST	1.22	1.22	19.3		0	1.27	1659	54
991265	SR 109	26.1 C		Pacific Ocean trib	21.0764	0	10.52	1.1 RND	SST	SST	1.22	1.22	22	0.2	1.6	500	0	1948
997780	SR 109	27.05 C		Pacific Ocean trib	21	67	7.35	1.1 RND	PCC	PCC	0.91	0.91	19.8		0	1.21	1121	4
997781	SR 109	27.41 C		Spruce Cr	21	0	6.96	1.1 RND	PCC	PCC	0.94	0.94	12.3		0	5.2	184	17
997784	SR 109	30.26 C		Pacific Ocean trib	21	0	10.46	1.1 RND	OTH	OTH	0.76	0.76		0.67			323	232
997786	SR 109	31.93 C		Moclips R trib	21	67		1.1 RND	PCC	PCC	0.76	0.76	25.1		0	1.35		
991272	SR 109	33.1 C		Wain Cr	21.0728	0	14.45	1.1 RND	PCC	PCC	1.52	1.52	45.7		0	1.9	3972	5849

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991266	SR 109	33.4 C		Pacific Ocean trib	21	0	8.63	1.1 RND	PCC	PCC	0.91	0.91	29.3	0.4	3	482	599	548
997787	SR 109	33.87 C		Pacific Ocean trib	21.0727	0	13.56	1.1 RND	PCC	PCC	1.22	1.22	31.5	0	3.96	1937	638	2389
990922	SR 109	35.73 C		Pacific Ocean trib	21.0718	0	7.19	1.1 RND	PCC	PCC	0.61	0.61	18	0.24	5	575	96	270
997790	SR 109	36 C		Pacific Ocean trib	21	0		1.1 RND	CAL	CAL	0.91	0.91		0				
991271	SR 109	36.38 C		Pacific Ocean trib	21.0716	0	11.07	1.1 RND	PCC	PCC	1.07	1.07	16.5	0.21	5.9	816	1239	1482
991270	SR 109	36.43 C, FI		Pacific Ocean trib	21.0715	67	10.25	1.1 RND	PCC	PCC	1.07	1.07	21	0	2.48	3081	677	3593
990923	SR 109	37.11 C		Pacific Ocean trib	21.0714	33		1.1 RND	PCC	PCC	0.91	0.91	31.7	0	1			
990924	SR 109	37.43 C		Pacific Ocean trib	21.0713	0	11.67	1.1 RND	PCC	PCC	0.91	0.91	16.9	0	4.1	1081	0	1996
990927	SR 109	39.15 C		Pacific Ocean trib	21.0711	0	11.73	1.1 RND	PCC	PCC	1.07	1.07	30.5	0.58	4	871	1254	1840
990559	SR 112	6.95 C		Strait of Juan de Fuca trib	19	33	7.32	1.1 RND	PCC	PCC	1.83	1.83	12.9	0.12	2.3	641	118	963
991259	SR 112	12.26 C		Hoko R trib	19.0148A	33		1.1 RND	PCC	PCC	0.61	0.61	16.1	0.2	1.6			
996684	SR 112	17.14 C		Clallam R trib	19	0	17.22	1.1 RND	CST	CST	1.08	1.08	112.3	0	3.5	1429	629	1538
996687	SR 112	17.65 C		Clallam R trib	19	67		1.1 RND	CST	CST	0.61	0.61	36.3	0	0.19	96		
996691	SR 112	19.36 C		Clallam R trib	19	0		1.1 RND	OTH	OTH	0.46	0.46	15.5	1.15	6	90		
991731	SR 112	21.1 C		Green Cr trib	19	0	7.45	1.1 RND	CST	CST	1.52	1.52	19.8	0.98	1	418	287	305
996694	SR 112	21.64 C		unnamed trib	19	33		1.1 RND	OTH	OTH	0.46	0.46	20.1	0.65	5.8	155		
996578	SR 112	22.99 C		Green Cr trib	19	33		1.1 RND	PCC	PCC	0.61	0.61	16.7	0	2.3	199		
996552	SR 112	23.07 C		Green Cr trib	19	67		1.1 RND	CST	CST	0.61	0.61	25.4	0	2.4	170		
996554	SR 112	24.26 C		Pysht R trib	19	33	5.79	1.1 RND	PCC	PCC	0.46	0.46	15.3	0.04	3.2	264	0	1610
996555	SR 112	24.77 C		Pysht R trib	19	67	8.69	1.1 RND	PCC	PCC	0.61	0.61	17.1	0	0.99	255	0	1858
996556	SR 112	25.2 C		Pysht R trib	19	0		1.1 RND	OTH	OTH	0.76	0.76	40.9	0.5	1.5			
991732	SR 112	29.12 C		Indian Cr	19.0112	0	13.43	1.1 RND	CST	CST	0.61	0.61	39.6	0.03	3	2567	1126	3623
990941	SR 112	29.7 C		Butler Cr	19	0	11.94	1.1 RND	PCC	PCC	0.76	0.76	44.2	0.55	3.4	1351	864	1739
991258	SR 112	29.71 C		Butler Cr trib	19	0	13.48	1.1 RND	PCC	PCC	0.76	0.76	47.2	0.61	3	2262	1386	2824
996424	SR 112	31.46 C		Jim Cr trib	19	0		1.1 RND	SST	SST	0.91	0.91	46	0.4	8.3			
996426	SR 112	32.85 C		Joe Cr trib	19	33		1.1 RND	PCC	PCC	0.76	0.76	18.5	0	4.2	107		
996427	SR 112	33.02 C		Joe Cr trib	19	0		1.1 RND	CST	CST	0.61	0.61	22.3	0.3	3.5	88		
996430	SR 112	34.12 C		Deep Cr trib	19	0	7.28	1.1 RND	PCC	PCC	0.76	0.76		0		293	49	302
996431	SR 112	34.2 C		Deep Cr trib	19	33	7.17	1.1 RND	PCC	PCC	0.76	0.76	69.5	0	3.91	459	65	424
996432	SR 112	34.28 C		Deep Cr trib	19	0	8.22	1.1 RND	PCC	PCC	0.76	0.76	99.8	0.35	7.1	587	75	491
990715	SR 112	35.28 C		Strait of Juan de Fuca trib	19	0	10.93	1.1 RND	CST	CST	1.21	1.21	17.8	0.45	2.7	182	145	237
996528	SR 112	44.34 C		Murdock Cr trib	19.0079	0	8.41	1.1 RND	OTH	OTH	0.91	0.91	28.8	1.05	6.64	248	234	268
996529	SR 112	45.66 C		Murdock Cr trib	19	67		1.2 RND	OTH	OTH	0.61	0.61	16.6	0	1.7	137		
996529	SR 112	45.66 C		Murdock Cr trib	19	67		2.2 RND	OTH	OTH	0.61	0.61	16.6	0.05	1	137		
990480	SR 112	49.48 C, FI		Whiskey Cr	19.0020	33	12.73	1.1 BOX	CPC	CPC	2.13	1.83	51.8		4	2724	6414	4409
996536	SR 112	49.62 C		EF Whiskey Cr	19.0022	0	18.88	1.1 RND	CST	CST	1.22	1.22	36.2	0.35	3.09	2385	922	13659
991693	SR 112	50.73 C		Whiskey Cr trib	19.0021	67		1.2 RND	PCC	PCC	0.91	0.91	34.9	0	0.37			
991693	SR 112	50.73 C		Whiskey Cr trib	19.0021	67		2.2 RND	PCC	PCC	0.91	0.91	34.2	0	0.08			
991738	SR 112	51.6 C		Uptha Cr	19.0010	33	10.73	1.1 RND	OTH	OTH	0.61	0.61	22.3	0	4.8	1268	51	2122
991661	SR 112	53.5 C		Falls Cr	19.0012	33	14.71	1.1 RND	CST	CST	1.52	1.52	42.8	0	0.8	3557	1768	7530
991686	SR 112	56.5 C		Coville Cr trib	19.0003	0	16.53	1.1 BOX	CPC	CPC	2.44	2.44	50.8	0.09	5	3151	816	3473
996541	SR 112	57.05 C		Coville Cr trib	19	0		1.1 RND	PCC	PCC	0.61	0.61	49.9	0.4	3.9	150		
995802	SR 112	60.27 C		Elwha R trib	18	0		1.1 RND	CST	CST	0.91	0.91	26.8	0.84	5.5	0		
995803	SR 112	60.71 C		Elwha R trib	18.0277	33	2.04	1.1 RND	CST	CST	1.22	1.22	43.5	0.05	4.3	557	458	640

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991733	SR 113	0.9 C		Beaver Cr trib	20	0	9.04	1.1 RND	CST	CST	1.22	1.22	64	0.65	3	363	265	224
997103	SR 113	5.58 C		Beaver Cr trib	20.0328	67		1.1 RND	CST	CST	2.9	2.9	19.9	0	2.4			
997105	SR 113	6.08 C		unnamed trib	20	33		1.1 RND	CST	CST	0.61	0.61	22.3	0	5.8	87		
996563	SR 113	6.55 C		Pysht R trib trib	19	0		1.1 SQSH	CST	CST	1.29	1.17				85		
996571	SR 113	8.35 C		Pysht R trib	19	0	5.89	1.1 RND	CST	CST	0.91	0.91	45.9	0.7	3.2	240	7	130
996573	SR 113	9.7 C		Pysht R trib	19	0	7.02	1.1 RND	PCC	PCC	0.91	0.91	21.6	1.29	5.09	402	67	177
996574	SR 113	9.81 C		Pysht R trib	19	0	7.2	1.2 RND	PCC	PCC	1.22	1.22	63.1	0	7.9	350	34	242
996574	SR 113	9.81 C		Pysht R trib	19	0	7.2	2.2 RND	PCC	PCC	1.22	1.22	63.2	0	7.7	350	34	242
990077	SR 116	0.22 C		Chimacum Cr	17.0203	33	82.03	1.1 RND	SPS	SPS	2.67	2.82	21.5	0	1.6	71105	32770	186201
995521	SR 116	1.64 C		Port Townsend Bay trib	17	0	4.71	1.1 RND	PCC	PCC	0.61	0.61	19	0.53	4	240	34	49
990943	SR 116	4.67 C		Killist Harbor	17	Unknown		1.2 RND	PCC	PCC	1.52	1.52	14.9	0	-0.67			
990943	SR 116	4.67 C		Killist Harbor	17	Unknown		2.2 RND	PCC	PCC	1.52	1.52	15	0	-1.07			
995908	SR 119	2.76 C		Dow Cr	16.0112	0	20.12	1.1 ELL	SPS	SPS	2.94	3.15	30.4	1.8	1.61	4280	13364	9220
995019	SR 119	3.98 C		Lake Kokanee trib	16	33		1.1 RND	CST	CST	1.22	1.22	12.4	0	2.78			
995913	SR 119	5.66 C		Lake Cushman trib	16	0		1.1 RND	OTH	OTH	0.3	0.3	10.2	0.11	9.8	49		
995915	SR 119	7.02 C		Lake Cushman trib	16	0	25.82	1.1 RND	PCC	PCC	0.61	0.61	20.1	0.34	3.3	689	708	2691
995916	SR 119	7.8 C		Lake Cushman trib	16	0	38.85	1.1 RND	CST	CST	1.22	1.22	18.8	3.8	3.45	1709	1276	13070
995917	SR 119	8.2 C		Big Cr trib	16	0	9.89	1.1 RND	CST	CST	0.61	0.61	32.6	0.25	2.14	560	141	936
995918	SR 119	8.35 C		Big Cr trib	16	67		1.1 RND	CAL	CAL	0.61	0.61	12.2	0.13	2.8	70		
933500	SR 119	9.38 C		Big Cr	16.0116	33		1.1 ARCH	OTH	OTH	6.55	3.02	19.4	0	0.24			
995924	SR 119	10.8 C		Lake Cushman trib	16	0		1.1 RND	CST	CST	0.46	0.46	21.6	0.9	12	54		
930022	SR 160	1.92 C		unnamed trib	15	67		1.1 RND	PCC	PCC	0.46	0.46	15.6	0.25	0.77	140		
990366	SR 160	2.29 C		Salmonberry Cr	15.0188	33	32.51	1.1 SQSH	SPS	SPS	2.26	1.71	18.8	0.46	0.2	9210	6700	40963
991567	SR 160	4.5 C		Curley Cr trib	15.0186	0	12.69	1.1 RND	CST	CST	0.76	0.76	53.1	0.74	5.08	837	197	2794
996954	SR 160	5.13 C		Sinclair Inlet trib	15.0183	33	3.69	1.1 RND	PCC	PCC	0.46	0.46	17.5	0	0.8	133	2	54
996955	SR 160	6.06 C		Puget Sound trib	15.0181	33		1.1 RND	PCC	PCC	0.46	0.46	35.6	0	1.1	129		
990970	SR 161	1.02 C		Mashel R trib	11	0		1.1 RND	PCC	PCC	1.22	1.22	12.6	0.75	1.2	176		
990971	SR 161	1.33 C		Mashel R trib	11	67		1.1 RND	PCC	PCC	0.46	0.46	14	0	2.2	112		
995475	SR 161	14.89 C		unnamed South Cr trib trib	11.0036	67	12.05	1.1 RND	PCC	PCC	0.93	0.93	16.1	0.41	1.24	7357	396	6869
934052	SR 162	3.26 C		Puyallup R trib	10.0399	33		1.1 RND	OTH	OTH	0.61		126.9	0	0.55			
991214	SR 162	3.7 C		Puyallup R trib	10.0399	33		1.1 RND	CST	CST	0.31	0.31	108	0				
991802	SR 162	6.33 C		Puyallup R trib	10	67		1.1 RND	OTH	OTH	0.61	0.61	20.2	0	2.9			
105 R021121a	SR 162	11.04 C		Card Cr	10	67	23.48	1.1 BOX	CPC	CPC	0.95	0.63	9.2	0	1.85	2908	651	6148
105 R032918d	SR 162	12.44 C		Rauch Cr	10	67	10.33	1.1 RND	CST	CST	0.76	0.76	15.6	0	1.28	836	34	2217
996291	SR 162	13.64 C		S Prairie Cr trib	10	67	10.71	1.2 RND	CST	CST	0.91	0.91	18.9	0	0.63	841	753	3861
996291	SR 162	13.64 C		S Prairie Cr trib	10	67	10.71	2.2 RND	CST	CST	0.91	0.91	18.6	0	-0.64	841	753	3861
105 R033020A	SR 162	16.67 C		S Prairie Cr trib	10	33	13.15	1.2 RND	PCC	PCC	0.76	0.76	11.7	0	1.62	2179	82	1979
105 R033020A	SR 162	16.67 C		S Prairie Cr trib	10	33	13.15	2.2 RND	PCC	PCC	0.76	0.76	11.9	0	0.42	2179	82	1979
105 R040517a	SR 162	19.11 C		S Prairie Cr trib	10	0	8.72	1.1 RND	PCC	PCC	0.91	0.91	49.8	0.28	10.1	2000	168	1956
996343	SR 162	19.7 C		Spiketon Cr	10.0449	0	17.46	1.1 BOX	PCC	PCC	1.72	1.88	18.9	1.88	5.76	3399	2062	3097
105 R033018B	SR 165	19.76 C		Spiketon Cr	10.0449	67	12.79	1.1 BOX	CPC	CPC	1.2	1.25	11.4	0	1.58	2991	1835	2779
992009	SR 166	0.73 C		Sinclair Inlet trib	15	0	5.24	1.1 RND	PCC	PCC	0.46	0.46	25.2	1.2	5.51	257	49	132
990358	SR 166	1.76 C		Ross Cr	15.0209	Unknown		1.1 BOX	CPC	CPC	1.83	1.35	20	0				
996956	SR 166	2.12 C		Sinclair Inlet trib	15	0	11.28	1.1 RND	PCC	PCC	0.91	0.91	88.5	2		269	0	588

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
996957	SR 166	2.27 C		Sinclair Inlet trib	15	33			1.1 RND	OTH	0.61	0.61	74.3	0	1.67			
15.0208 0.00	SR 166	2.56 C		Sinclair Inlet trib	15.0208	33	20.23	1.1 RND	OTH	OTH	0.91	0.91	149.1	0	1.92	2928	1017	3196
920412	SR 166	4.11 C		Sinclair Inlet trib	15	0	11.39	1.1 RND	OTH	OTH	0.91	0.91	313.6	0		716	56	725
15.0201 0.90	SR 166	4.52 C		Olney Cr	15.0201	0	14.29	1.1 BOX	CPC	CPC	1.22	1.22	94.9	0	3	2516	1713	4489
990083	SR 167	0.82 C		Clear Cr	10.0022	33		1.1 BOX	CPC	CPC	4.57	4.57		0				
930603	SR 167	9.47 C		Milwaukee Canal trib	10.0000	33	10.5	1.1 RND	PCC	PCC	0.76	0.76	15.5	0	2.13	281	3	381
996288	SR 167	10.46 C		Milwaukee Canal trib	10	33	8.03	1.1 RND	CST	CST	1.37	1.37	88.5	0.29	1	406	0	2100
996699	SR 300	2.36 C		Union R trib	15	67	13.7	1.1 RND	OTH	OTH	1.22	1.22	13.6	0.2	1.76	1427	511	5350
996700	SR 300	2.38 C		Union R trib	15	67		1.1 RND	PCC	PCC	0.46	0.46	15.9	0	2.45	89		
991559	SR 302	0.9 C		North Bay trib	15.0001	0	7.4	1.1 RND	CST	CST	0.76	0.76	25.9	1.05	1	285	151	270
996763	SR 302	1.25 C		Coulter Cr trib	15	0		1.2 RND	CST	CST	0.46	0.46	31	0.36	1.52	128		
996763	SR 302	1.25 C		Coulter Cr trib	15	0		2.2 RND	CST	CST	0.46	0.46	30.8	0.32	1.4	128		
996765	SR 302	1.86 C		North Bay trib	15	33	5.52	1.1 RND	OTH	OTH	0.46	0.46	11.5	0.06	3.8	389	16	274
991522	SR 302	2.1 C		North Bay trib	15	67	5.97	1.1 RND	PCC	PCC	0.91	0.91	14		0	0.56	645	78
991239	SR 302	2.36 C		North Bay trib	15	0	8.2	1.1 RND	CST	CST	0.46	0.46	14.2	0.55	2.25	775	101	889
991523	SR 302	2.48 C		North Bay trib	15	0	7.94	1.1 RND	CST	CST	0.91	0.91	16.4	0.34	4.6	725	86	525
991525	SR 302	4.2 C		Victor Cr	15.0014	67	19.17	1.1 RND	PCC	PCC	0.91	0.91	15.3	0	1.44	2041	1238	44001
991526	SR 302	4.7 C		Case Inlet trib	15	0		1.1 RND	OTH	OTH	0.61	0.61	19.2	0.6	6.9	175		
991527	SR 302	5.5 C		Rocky Bay trib	15	0	7.2	1.1 RND	PCC	PCC	1.37	1.37	57.8	0	4.8	565	70	557
990286	SR 302	11.3 C		Minter Cr	15.0048	33	47.63	1.2 BOX	CPC	CPC	2.44	1.83	37.5	0	0.24	34207	32753	94676
990286	SR 302	11.3 C		Minter Cr	15.0048	33	47.63	2.2 BOX	CPC	CPC	2.44	1.83	37.5	0	0.11	34207	32753	94676
15.0051 0.10	SR 302	11.44 C, FI		Little Minter Cr	15.0051	67	27.5	1.1 BOX	CPC	CPC	1.83	1.22	17.1	0.18		5995	1867	19484
15.0051 0.20	SR 302	11.5 C, FI		Little Minter Cr	15.0051	67	27.21	1.1 BOX	CPC	CPC	1.83	1.22	16.8	0.07		5858	1719	19142
990345	SR 302	15.8 C		Purdy Cr	15.0060	67	29.88	1.1 BOX	CPC	CPC	1.85	1.85	24.8	0	0.5	10436	9523	216787
996783	SR 302	15.95 C		Henderson Bay trib	15	33	13.26	1.1 RND	PCC	PCC	0.76	0.76	63.1	0	1.8	878	725	503
105 K051518a	SR 302	16.15 C		Goodnough Cr	15.0063	0	22.95	1.1 RND	PCC	PCC	1.38	1.38	63.6	0	3.06	3068	1988	5502
996785	SR 302	16.44 C		Henderson Bay trib	15	0		1.1 RND	PCC	PCC	0.31	0.31	122	2		77		
994085	SR 303	6.63 C		Hoot Cr	15.0256C	67	18.96	1.2 RND	CST	CST	0.91	0.91	19	0	0.05	4762	860	11033
994085	SR 303	6.63 C		Hoot Cr	15.0256C	67	18.96	2.2 RND	CST	CST	0.91	0.91	18.6	0	0.3	4762	860	11033
990024	SR 303	6.66 C		Hoot Cr	15.0256C	67	18.95	1.3 RND	CST	CST	0.61	0.61	94.6	0	0.67	4820	860	11040
990024	SR 303	6.66 C		Hoot Cr	15.0256C	67	18.95	2.3 RND	CST	CST	0.61	0.61	94.6	0	0.61	4820	860	11040
990024	SR 303	6.66 C		Hoot Cr	15.0256C	67	18.95	3.3 RND	CST	CST	0.61	0.61	94.4	0	0.64	4820	860	11040
994086	SR 303	6.68 C		Hoot Cr	15.0256C	67	18.16	1.2 RND	CST	CST	0.91	0.91	36.7	0	1.72	3259	857	8508
994086	SR 303	6.68 C		Hoot Cr	15.0256C	67	18.16	2.2 RND	CST	CST	0.91	0.91		0		3259	857	8508
930408	SR 303	6.7 C		Hoot Cr trib	15	67	9.39	1.1 RND	CST	CST	0.91	0.91	45.6	0	0.81	1365	3	2525
930416	SR 303	6.72 C		unnamed trib	15	33	4.52	1.1 RND	CST	CST	0.46	0.46	34.2	0	0.4	42	0	68
994320	SR 305	0.49 C		Eagle Harbor trib	15.0324	0	22.08	1.1 RND	OTH	OTH	1.22	1.22	102.4	0.45	3.3	1873	1059	9715
994324	SR 305	0.62 C		Eagle Harbor trib	15.0324	0	18	1.1 RND	PCC	PCC	0.76	0.76	49.7	1.25	0.89	1151	56	8846
933643	SR 305	1.38 C		Eagle Harbor trib	15	33		1.1 RND	PCC	PCC	0.46	0.46	28.1	0	1.14			
933644	SR 305	1.9 C		Murden Cove trib	15	0		1.1 RND	OTH	OTH	0.46	0.46	55.1	0.27	6.73			
994325	SR 305	2.44 C		Murden Cr	15.0321	33	29.44	1.1 BOX	CPC	CPC	1.56	1.22	46.8	0	0.62	2358	3799	3715
933663	SR 305	3.37 C		Murden Cove trib	15	0		1.1 RND	PCC	PCC	0.46	0.46	29.7	0.34	4.08			
994326	SR 305	3.73 C		Manzanita Cr	15.0344	0	12.01	1.1 RND	PCC	PCC	0.79	0.79	39.7	1.2	4.3	799	12	4093
933685	SR 305	5.23 C		Port Madison trib	15	33		1.1 RND	PCC	PCC	0.46	0.46	79.5	0	1.91			

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
933686	SR 305	5.37 C		Manzanita Bay trib	15	33			1.1 RND	PCC	0.76	0.76	37					
991958	SR 305	7.28 C		Klebeal Cr	15.0296	0	29.48	1.1 RND	PCC	PCC	1.22	1.22	61.3	0	2.61	3767	1027	8345
994327	SR 305	8.92 C		Sam Snyder Cr	15.0293	0	20.91	1.2 RND	PCC	PCC	0.91	0.91	89.5	0.86	2.7	3186	2231	4456
994327	SR 305	8.92 C		Sam Snyder Cr	15.0293	0	20.91	2.2 RND	PCC	PCC	0.91	0.91	90.8	2.35	1.41	3186	2231	4456
994328	SR 305	10.55 C		Liberty Bay trib	15.0289	0		1.1 RND	PCC	PCC	0.91	0.91	41.5	2	7.5			
991855	SR 305	12.59 C		SF Dogfish Cr trib	15	33	10.84	1.1 RND	OTH	OTH	0.46	0.46	28.1	0	1.78	255	1	2217
933284	SR 305	13.12 C		Dogfish Cr trib	15.0000	0	8.95	1.1 RND	PCC	PCC	0.61	0.61	41.5	0.33	7.87	616	118	465
991998	SR 307	0.98 C		unnamed trib	15	0	3.96	1.1 RND	PCC	PCC	0.3	0.3	9.5	0	5.46	212	122	111
991997	SR 307	0.98 C		unnamed trib	15	0	3.98	1.1 RND	PCC	PCC	0.45	0.45	16.5	0	5.2	224	123	112
991999	SR 307	1.34 C		Dogfish Cr trib	15.0286	67	19.84	1.1 RND	GST	GST	1.21	1.21	21.4	0.6	0.32	2734	2420	4738
991572	SR 307	1.45 C		Dogfish Cr trib	15.0286	33	22.28	1.1 RND	GST	GST	1.21	1.21	33.8	0.35	2.15	2187	1771	3849
991851	SR 307	2.5 C		Gamble Cr trib	15.0358	0	15.07	1.1 RND	OTH	OTH	0.61	0.61	60	0	3.04	945	369	903
996931	SR 308	0.3 C		Clear Cr	15.0249	33		1.1 RND	PCC	PCC	0.91	0.91	34.1	0	1.67			
990235	SR 308	0.94 C		Big Scandia Cr	15.0280	33	23.62	1.1 RND	GST	GST	1.83	1.83	47	0	1.26	5548	3895	7340
15.0280 1.00	SR 308	1.15 C, FI		Big Scandia Cr	15.0280	67	21	1.1 RND	SPS	SPS	1.85	1.85	89.1	0	2.6	6430	5016	9257
992008	SR 308	1.33 C		Little Scandia Cr	15.0279	0	15.47	1.1 RND	GST	GST	1.05	1.05	100.3	0.1	2.76	1126	806	1166
991000	SR 308	2.16 C		Puget Sound trib	15.0278	0	15.98	1.1 RND	PCC	PCC	0.76	0.76	34.1	0	2.43	1576	433	1934
996933	SR 308	2.41 C		Liberty Bay trib	15	0		1.1 RND	PCC	PCC	0.46	0.46	21.8	0	3.4	110		
996932	SR 308	2.57 C		Liberty Bay trib	15.0277	0		1.1 RND	PCC	PCC	0.61	0.61	26.6	0.6	5.5			
996617	SR 410	14.04 C		Fennel Cr	10.0406	67		1.2 BOX	GPC	GPC	1.83	1.83	51	0	0.2			
996617	SR 410	14.04 C		Fennel Cr	10.0406	67		2.2 BOX	GPC	GPC	1.83	1.83	51	0	0.2			
996618	SR 410	17.26 C		Fennel Cr	10.0406	67		1.1 RND	PCC	PCC	0.61	0.61	22.4	0	0.09	9617		
996619	SR 410	21.73 C		Lake Tapps Canal trib	10	33	7.23	1.1 RND	PCC	PCC	0.91	0.91	27.3	0.19	1.17	275	42	148
125 1502W11B	SR 507	8.22 C		Skookumchuck R trib	23	33	19.05	1.1 RND	PCC	PCC	1.22	1.22	17.2	0	0.47	2206	384	10581
991662	SR 507	15.71 C		unnamed Scatter Cr trib trib	23.0720	33		1.1 BOX	PCC	PCC	1.87	1.09	14.2	0	2.4			
997703	SR 507	18.9 C		McIntosh Lk trib	13	67	2.66	1.1 RND	PCC	PCC	1.22	1.22	28.4	0	1	5464	299	3767
995891	SR 507	25.96 C		Thompson Cr	11	67		1.1 RND	OTH	OTH	1.07	1.07	54.2	0	0.7			
995893	SR 507	30.61 C		McKenna Cr	11.0055	33	21.71	1.1 RND	SPS	SPS	2.25	2.25	29.4	0	1.1	1464	187	15914
105 R121419a	SR 509	2.98 C		Wapato Cr	10.0017	Unknown		1.1 SQSH	GST	GST	2.58	1.65	40.3	0	-0.52			
933183	SR 509	5.24 C		Commencement Bay trib	10.0007	Unknown		1.1 SQSH	SPS	SPS	1.82	1.13	28.1	0.73	5.69			
933185	SR 509	5.81 C		Commencement Bay trib	10	0	6.11	1.1 RND	SST	SST	0.61	0.61		1.16		107	0	51
990656	SR 510	5.64 C		McAllister Cr trib	11.0328	67	9.18	1.1 RND	PCC	PCC	0.61	0.61	100.6		0	1449	0	1790
991052	SR 510	6.28 C		McAllister Cr trib	11	0		1.1 RND	OTH	OTH	0.61	0.61	31.3	0.5	5.5	170		
991051	SR 510	12.97 C		Thompson Cr	11.0041	33		1.1 RND	PCC	PCC	1.37	1.37	16.1	0.18	1.4	115		
997920	SR 512	3.3 C		NF Clover Cr trib	12.0015	67	7.59	1.1 RND	GST	GST	1.22	1.22	73.9	0.42	0.85	1600	0	859
932349	SR 512	8.25 C		Silver Cr	10	67	5.42	1.1 RND	GST	GST	0.76	0.76	56.3	0	0.95	395	5	252
932345	SR 512	8.25 C		Silver Cr	10	0	7.89	1.1 RND	GST	GST	0.76	0.76	34.8	0	2.81	672	18	375
932347	SR 512	8.25 C		Silver Cr	10	67	5.62	1.3 RND	GST	GST	1.07	1.07	67.6	0.12	-0.19	508	9	292
932347	SR 512	8.25 C		Silver Cr	10	67	5.62	2.3 RND	GST	GST	1.07	1.07	67	0.05	0.06	508	9	292
932347	SR 512	8.25 C		Silver Cr	10	67	5.62	3.3 RND	GST	GST	1.07	1.07	67.9	0	0.16	508	9	292
932351	SR 512	9.68 C		Puyallup R trib	10	0		1.1 RND	PCC	PCC	0.76	0.76	156.6	0.35	3.04			
991229	SR 702	4.53 C		Nisqually R trib	11.0058	67		1.1 RND	GST	GST	0.91	0.91	16.5	0	1.5			
995899	SR 702	5.6 C		Horn Cr trib	11	67		1.1 RND	PCC	PCC	0.61	0.61	17.2	0	1.9	10		
995476	SR 706	0.2 C		Nisqually R trib	11	33		1.1 RND	PCC	PCC	1.07	1.07	32.1	0.62	1.9			

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991226	SR 706	1.75 C		Nisqually R trib	11	67		1.1 BOX	CPC		1.83	1.54	19.7	0.09	1.3			
991235	SR 706	6.01 C		Nisqually R trib	11	67		1.1 RND	PCC		0.91	0.91	20.5	0.09	2.5			
991637	SR 706	8 C		Nisqually R trib	11	33		1.1 SQSH	CST		1.5	0.96	36.1	0	4.5			
991227	SR 706	9.81 C, FI		Nisqually R trib	11.0222	67		1.1 SQSH	CST		2.31	1.59	31	0	1			
995074	SR 706	10.43 C		Nisqually R trib	11.0224	0		1.2 RND	PCC		0.91	0.91	15.1	0.55	1.8			
995074	SR 706	10.43 C		Nisqually R trib	11.0224	0		2.2 RND	PCC		0.91	0.91	15.4	0.7	0.8			
995095	SR 706	10.45 C		unnamed trib	11	67		1.1 RND	PCC		0.76	0.76	25.6	0	1.3			
995077	SR 706	11.62 C		Nisqually R trib	11	0		1.1 RND	PCC		1.22	1.22	18.7	2.2	10	169		
990485	US 12	0.61 C		Wilson Cr	22.0236	Unknown		1.1 BOX	CPC		1.83	1.22	40.8	0	0.95			
994788	US 12	3.76 C		Elliott Sl	22.0238	33	13.56	1.1 RND	PCC		0.46	0.46	30.6	0	1.57	2311	164	5744
991284	US 12	4.59 C		Mox Chuck Sl trib	22.0253	33	9.72	1.1 OTH	OTH		1.21	1.21	98.4	0	1.89	1151	135	1434
991283	US 12	5.24 C		Mox Chuck Sl trib	22	0	8.82	1.1 RND	PCC		0.91	0.91	86.9	0	2	691	110	391
991285	US 12	5.38 C		unnamed trib	22.0252	0	11.3	1.1 RND	PCC		0.91	0.91	56.5	0.36	1.22	1789	492	1754
991633	US 12	5.62 C		unnamed trib	22	0	8.25	1.1 RND	PCC		0.61	0.61	46.1	0	2.45	931	338	538
991910	US 12	6.55 C		Higgins Sl trib	22	0	4.49	1.1 RND	PCC		0.76	0.76	82.9	0	2.94	271	39	90
991909	US 12	6.56 C		unnamed Higgins Sl trib trib	22.0000	0		1.1 RND	PCC		0.61	0.61	91.1	0.26	3.38	37		
990957	US 12	6.58 C		Higgins Sl trib	22	0	9.67	1.1 RND	PCC		0.76	0.76	74.1	0	3.44	858	323	421
990968	US 12	6.92 C		Higgins Sl	22.0257	0	15.6	1.1 RND	PCC		0.91	0.91	144	0	3.85	1612	439	1132
991911	US 12	7.26 C		Higgins Sl trib	22	0	8.29	1.1 RND	OTH		0.91	0.91	154.1	0.75	3.55	473	168	509
991528	US 12	11.01 C		unnamed Chehalis R trib trib	22	33	22.56	1.1 RND	CST		0.61	0.61	49.7	0.08	0.22	5720	782	12260
931349	US 12	11.49 C		unnamed Chehalis R trib trib	22	67	6.74	1.1 RND	CST		0.61	0.61	54	0	0.26	276	0	616
22.0349 0.70	US 12	12.36 C, FI		Camp Cr	22.0349	33		1.2 BOX	CPC		1.83	1.83	83.1	0	0.04	9978		
22.0349 0.70	US 12	12.36 C, FI		Camp Cr	22.0349	33		2.2 BOX	CPC		1.83	1.83	83.1	0	0.04	9978		
933616	US 12	17.56 C		Wenzel Sl trib	22	67		1.2 RND	CST		1.37	1.37	51.1	0	0.37			
933616	US 12	17.56 C		Wenzel Sl trib	22	67		2.2 RND	CST		1.37	1.37	50.8	0	0.28			
125 1806W34G	US 12	19.17 C		Vance Cr trib	22	33	13.23	1.2 RND	PCC		1.22	1.22	46.1	0	0.39	7296	1269	6790
125 1806W34G	US 12	19.17 C		Vance Cr trib	22	33	13.23	2.2 RND	PCC		1.22	1.22	46.1	0	0.39	7296	1269	6790
991533	US 12	23.3 C		Chehalis R trib	22	33	7.66	1.2 RND	PCC		0.76	0.76	20.7	0	0.68	409	0	192
991533	US 12	23.3 C		Chehalis R trib	22	33	7.66	2.2 RND	PCC		0.76	0.76	20.5	0	1.3	409	0	192
994799	US 12	26.87 C		Chehalis R trib	22.0542	0	16.04	1.1 RND	SST		1.04	1.04	66.6	1.44	3.2	3293	1494	3548
996614	US 12	27.87 C		Chehalis R trib	23	0		1.1 RND	PCC		0.61	0.61	25.2	0.6	4.5			
991541	US 12	28.17 C		Chehalis R trib	23	0	9.79	1.1 RND	PCC		0.61	0.61	30.5	0	3.24	1145	441	988
991540	US 12	28.6 C		Chehalis R trib	23	0	5.51	1.1 RND	PCC		0.76	0.76	54	1	3.3	734	837	483
996635	US 12	29 C		unnamed trib	23	33		1.1 RND	PCC		0.61	0.61	68.9	0.07	3.85	300		
991535	US 12	29.19 C		Chehalis R trib	23	33	10.22	1.1 RND	PCC		0.91	0.91	54.2	0	1.5	3990	2159	2979
991536	US 12	29.45 C		Chehalis R trib	23	0	10.83	1.1 RND	PCC		0.91	0.91	43.9	0	6.5	2283	474	953
996659	US 12	30.74 C		Chehalis R trib	23	67		1.1 BOX	CPC		0.91	0.91	18.6	0	2.7	55		
996710	US 12	31.19 C		Chehalis R trib	23	33		1.1 RND	PCC		0.91	0.91	24.3	0	0.4	77		
996712	US 12	31.61 C		Cedar Cr trib	23	33	18.3	1.1 BOX	CPC		1.52	0.91	12.7	0	2.83	1580	833	1702
996714	US 12	32.69 C		Cedar Cr trib	23	67	8.31	1.1 RND	PCC		0.61	0.61	17.8	0	0.5	1517	1048	1580
991537	US 12	33.2 C		Chehalis R trib	23	33		1.1 BOX	CPC		1.22	1.22	38.1	0	3.14			
991538	US 12	33.44 C		Chehalis R trib	23.0619	0	14.64	1.1 BOX	CPC		1.22	1.22	42.5	0	2.37	1943	956	2487
991539	US 12	33.6 C		Chehalis R trib	23	0	8.81	1.1 RND	PCC		0.91	0.91	42.2	0.17	5.36	699	227	648
990563	US 12	36.33 C		Roundtree Cr	23.0624	67		1.1 BOX	CPC		1.22	1.22	13.4	0	-0.37			

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
992510	US 101	71.02	C	Joe Cr	24.0129	67	24.98	1.2 BOX	GPC		1.53	1.53	52	0.45	0.9	6882	1217	16917
992510	US 101	71.02	C	Joe Cr	24.0129	67	24.98	2.2 BOX	GPC		1.53	1.53	52	0.45	0.9	6882	1217	16917
992526	US 101	73.35	C	unnamed trib	24	0	8.02	1.1 OTH	CPC		1	1.02	63.3	0	5.3	775	142	425
992531	US 101	73.99	C	unnamed North R trib trib	24	0		1.1 BOX	CPC		0.92	0.92	37	0	3.27			
992534	US 101	75.05	C	Little North R trib	24	0	7.8	1.1 RND	CST		0.91	0.91	56.8	0.32	2.67	606	50	399
993670	US 101	80.4	C	Chehalis R trib	22	0	9.07	1.1 RND	CST		0.91	0.91	84.9	0	1.84	219	4	729
993673	US 101	84.15	C	Chehalis R trib	22	0	12.33	1.1 OTH	OTH		0.61	0.61	14.38	0		2779	82	950
993681	US 101	89.48	C	Hoquiam R trib	22	Unknown	6.25	1.1 RND	OTH		0.53	0.53	16	0.65		498	9	224
993675	US 101	89.77	C	Hoquiam R trib	22	67		1.1 RND	PCC		0.61	0.61	24.6	0	1.5			
993679	US 101	90.73	C	Hoquiam R trib	22	33	17.35	1.1 RND	PCC		0.61	0.61	54.3	0	2	323	0	4450
993680	US 101	90.95	C	Hoquiam R trib	22	Unknown		1.1 RND	PCC		0.91	0.91	32.4	0	0.15			
993688	US 101	92.33	C	WF Hoquiam R trib	22	Unknown		1.1 BOX	CPC		1.8	1.1	15.7	0	1.4			
993695	US 101	93.49	C	WF Hoquiam R trib	22	33	9.29	1.1 RND	PCC		0.91	0.91	23.1	0	4.5	938	42	438
990732	US 101	93.79	C	WF Hoquiam R trib	22	0	9.39	1.1 RND	PCC		0.91	0.91	24.8	0	4	940	72	381
993698	US 101	95.46	C	WF Hoquiam R trib	22	0	8.62	1.1 RND	CST		0.61	0.61	27	0.2	1.7	240	20	122
991619	US 101	95.93	C	WF Hoquiam R trib	22	0		1.1 RND	CST		0.76	0.76	23	0	0.08			
991691	US 101	96.87	C	WF Hoquiam R trib	22	0		1.1 RND	PCC		0.91	0.91	18.3	0.18	5	50		
993702	US 101	98.47	C	WF Hoquiam R trib	22	67	9.28	1.1 RND	PCC		0.91	0.91	24.5	0	1.7	1037	15	1098
993704	US 101	99.45	C	WF Hoquiam R trib	22	67	6.67	1.1 RND	PCC		0.91	0.91	24.6	0	1.8	993	56	584
990730	US 101	100.7	C	unnamed trib	22.0060	33	14.96	1.1 RND	PCC		0.91	0.91	32.1	0	1.3	1742	0	6833
990033	US 101	102.97	C	Big Cr trib	22	67		1.1 SQSH	CST		1.82	1.1	29.5	0	0.1			
993712	US 101	103.25	C	Big Cr trib	22.0000	Unknown		1.1 RND	PCC		0.91	0.91	30.1	0	0.33			
991501	US 101	103.65	C, FI	Big Cr trib	22.0057	67	14.33	1.2 RND	CST		1.83	1.83	30.5	0	2	3434	5436	5573
991501	US 101	103.65	C, FI	Big Cr trib	22.0057	67	14.33	2.2 RND	CST		1.83	1.83	30.5	0	2	3434	5436	5573
993717	US 101	110.84	C	Stevens Cr trib	22	33	9.37	1.1 RND	PCC		0.61	0.61	33.2	0	4.6	404	110	324
990731	US 101	111.34	C	Stevens Cr trib	22.0064A	33	14.44	1.1 OTH	OTH		1.22	1.22	22.6	0	2.2	1162	485	3052
991690	US 101	111.9	C, FI	Stevens Cr trib	22	67	10.83	1.1 BOX	PCC		1.72	1.23	28.2	0	1.2	972	33	2848
997301	US 101	118.09	C	Cook Cr trib	21	67		1.1 RND	PCC		0.76	0.76	32.2	0	-0.34			
997302	US 101	118.35	C	unnamed trib	21	33		1.1 RND	PCC		0.76	0.76	42.2	0.26	7.1			
991558	US 101	119.4	C	Skunk Cr	21.0000	67		1.2 BOX	GPC		1.83	1.53	13.8	0.39	0.36			
991558	US 101	119.4	C	Skunk Cr	21.0000	67		2.2 BOX	GPC		1.83	1.53	13.8	0.39	0.36			
997304	US 101	119.6	C	Skunk Cr trib	21	33		1.1 RND	PCC		0.61	0.61	14.7	0	-0.75			
997305	US 101	120.33	C	Cook Cr trib	21	67		1.1 RND	PCC		0.61	0.61	24.3	0	1.8			
997307	US 101	121.68	C	Hathaway Cr trib	21	67		1.1 RND	PCC		0.76	0.76	25.4	0	1.5			
990182	US 101	122.4	C	Hathaway Cr	21.0457	33		1.1 BOX	PCC		1.22	1.22	19.5	0.09	2.2			
997309	US 101	122.92	C	McCalla Cr trib	21	0		1.1 RND	PCC		0.76	0.76	22	0.38	0.73			
990276	US 101	123.05	C	McCalla Cr	21.0456	33	9.57	1.1 RND	PCC		0.91	0.91	18.5	0.12	1.2	861	763	1118
990537	US 101	125.2	C	Quinault R trib	21	33		1.1 RND	PCC		0.91	0.91	25.1	0.01	-0.04			
990538	US 101	125.25	C	unnamed trib	21	33		1.1 RND	PCC		0.91	0.91	22.6	0.12	0.18	150		
991653	US 101	126.24	C	Quinault R trib	21	0	7.69	1.1 RND	PCC		1.47	1.47	29.9	0.35	3	278	94	117
997325	US 101	130.01	B	Milbourn Cr	21.0452	67												
990543	US 101	132	C	Ten O Clock Cr trib	21	67		1.1 RND	PCC		0.91	0.91	17	0	1.8			
990544	US 101	132.16	C	Ten O Clock Cr trib	21	67		1.1 RND	PCC		0.91	0.91	14.7	0	1.05			
990452	US 101	135.26	C	Lunch Cr trib	21	33		1.2 BOX	CPC		2.45	1.22	16	0	0.63			

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990452	US 101	135.26	C	Lunch Cr trib	21	33		2.2	BOX	PCC	2.45	1.24	15.9	0	0.63			
990546	US 101	135.68	C	Lunch Cr	21.0374	33	13.66	1.1	BOX	PCC	1.83	1.52	18.5	0	1.03	3288	3889	6267
990453	US 101	135.95	C	Lunch Cr trib	21	67	5.21	1.1	RND	PCC	1.22	1.22	28	0	0.5	337	10	212
990454	US 101	136.34	C	Lunch Cr trib	21	Unknown		1.1	RND	CST	0.91	0.91	18.3	0	0.82			
990252	US 101	136.45	C	Cedar Cr	21.0371	33		1.1	BOX	CPC	1.83	1.6	14.6	0	0			
990455	US 101	136.7	C	Cedar Cr trib	21	33		1.1	RND	CST	1.22	1.22	27.7	0	1.37			
990547	US 101	136.9	C	Cedar Cr trib	21	67		1.1	RND	CST	0.84	0.84	16.1	0	1.74			
990883	US 101	137.32	C	Crane Cr	21.0370	33		1.1	RND	CST	1.22	1.22	25.3	0.08	1.11			
990456	US 101	137.82	C	Crane Cr trib	21	0		1.1	SQSH	CST	1.2	0.82	27	0.06	0.52			
997338	US 101	140.08	C	NF Raft R trib	21	67		1.2	RND	CST	1.52	1.52	17.7	0	0.1			
997338	US 101	140.08	C	NF Raft R trib	21	67		2.2	RND	CST	1.52	1.52	17.9	0	0.17			
990548	US 101	142.48	C	Harlow Cr	21.0134	0	15.91	1.1	RND	CST	1.22	1.22	22.6	0.27	3.28	1080	77	3441
990457	US 101	142.68	C	Harlow Cr	21.0134	33	15.05	1.1	RND	CST	1.22	1.22	24.1	0	1.91	1485	389	4134
990178	US 101	146.85	C, FI	Harlow Cr	21.0134	67	26.58	1.2	BOX	CPC	2.44	1.22	31.9	0.11	0.34	16889	17854	39968
990178	US 101	146.85	C, FI	Harlow Cr	21.0134	67	26.58	2.2	BOX	CPC	2.44	1.22	31.9	0.11	0.34	16889	17854	39968
990148	US 101	147.49	C	Fisher Cr	21.0018	33	29	1.2	BOX	CPC	1.52	1.22	24.2	0.04	1.8	5132	9836	12568
990148	US 101	147.49	C	Fisher Cr	21.0018	33	29	2.2	BOX	CPC	1.52	1.22	24.2	0.04	1.9	5132	9836	12568
997342	US 101	152.47	C	Queets R trib	21	33		1.1	SQSH	CST	1.4	1	33.7	0	0.96			
991268	US 101	153.96	C	Pacific Ocean trib	21.0015	0	5.6	1.1	BOX	PCC	1.52	1.52	23.8	0.58	3	62	76	100
997345	US 101	154.27	C	Pacific Ocean trib	21.0014	0		1.1	BOX	CPC	1.22	1.22	24.8	2.3	7.1	33		
990549	US 101	154.45	C	Pacific Ocean trib	21	0		1.1	BOX	PCC	1.22	1.22	28.5	1.37	4.2	54		
990722	US 101	154.88	C	Pacific Ocean trib	21	33		1.1	BOX	PCC	1.22	1.22	39.6	1.35	3	150		
990550	US 101	154.9	C	Pacific Ocean trib	21	67		1.1	BOX	PCC	1.22	1.22	25.9	0	3.2			
990723	US 101	155.15	C	Pacific Ocean trib	21	0	2.68	1.2	BOX	PCC	1.22	1.22	39	1.37	3	2613	2139	1338
990723	US 101	155.15	C	Pacific Ocean trib	21	0	2.68	2.2	BOX	PCC	1.22	1.22	39	1.37	3	2613	2139	1338
991267	US 101	155.35	C	Pacific Ocean trib	21.0011	0	4.19	1.2	BOX	PCC	1.22	1.22	38.1	1.19	1.8	4193	4282	8440
991267	US 101	155.35	C	Pacific Ocean trib	21.0011	0	4.19	2.2	BOX	PCC	1.22	1.22	38.1		1.8	4193	4282	8440
997355	US 101	155.8	C	Pacific Ocean trib	21	33	1.83	1.2	RND	PCC	0.61	0.61	16	0.83	1.8	529	0	280
997355	US 101	155.8	C	Pacific Ocean trib	21	33	1.83	2.2	RND	PCC	0.61	0.61	15.8	0.83	1.25	529	0	280
991276	US 101	156.1	C	Pacific Ocean trib	21	33	8.2	1.1	BOX	CPC	1.52	1.52	35.2	0	1.93	602	0	364
991277	US 101	156.15	C	Pacific Ocean trib	21	0	1.77	1.1	RND	PCC	0.91	0.91	25.9	0.24	6.29	146	0	123
997349	US 101	158.26	C	Pacific Ocean trib	21	33	1.81	1.1	BOX	CPC	1.52	1.52	27.6	1.1	1.85	618	0	198
990724	US 101	158.7	C	Pacific Ocean trib	21	0		1.1	BOX	PCC	1.52	1.52	34.8	3	0.5	1		
997356	US 101	159.03	C	Pacific Ocean trib	21	33		1.1	RND	PCC	0.91	0.91	36	0	2	117		
990726	US 101	159.1	C	Pacific Ocean trib	21	0		1.1	RND	PCC	0.91	0.91	61	0.16	2	45		
990725	US 101	159.14	C	Pacific Ocean trib	21	0		1.1	OTH	OTH	0.61	0.91	36.4	0	4.06	77		
997352	US 101	159.29	C	Pacific Ocean trib	21	0		1.1	RND	PCC	0.91	0.91	31.9	0.45	6.8	144		
997353	US 101	159.39	C	Pacific Ocean trib	21	0		1.2	RND	PCC	0.61	0.61	40.6	0.6	3.9	66		
997353	US 101	159.39	C	Pacific Ocean trib	21	0		2.2	RND	PCC	0.61	0.61	39.5	0.6	3.5	66		
990727	US 101	159.63	C	Pacific Ocean trib	20	0		1.1	BOX	CPC	1.55	1.55	61	3.5	1	12		
996217	US 101	159.94	C	Pacific Ocean trib	20	0		1.1	RND	PCC	0.61	0.61	19.2	1	4.38	136		
996218	US 101	160.17	C	Pacific Ocean trib	20	0		1.1	RND	PCC	0.61	0.61	22.1	0.42	13.9	81		
996220	US 101	160.42	C	Pacific Ocean trib	20	0		1.1	RND	PCC	0.91	0.91	88.5	2	11.3	78		
990728	US 101	160.75	C	Pacific Ocean trib	20	0		1.1	BOX	PCC	1.52	1.55	39.9	0.65	3			

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
996223	US 101	160.89	C	Pacific Ocean trib	20	0	6.87	1.1	BOX	CPC	1.53	1.53	33.6	0.82	7.61	350	24	241
990718	US 101	161.07	C	Pacific Ocean trib	20	0		1.1	BOX	PCC	0.95	0.95	39.6	0.87	2.5			
991261	US 101	161.5	C	Pacific Ocean trib	20.0000A	0	9.19	1.1	RND	CST	1.22	1.22	56.4	1.34	1.5	277	242	572
990400	US 101	162.6	C, FI	Steamboat Cr	20.0574	0	20.91	1.3	BOX	CPC	1.83	1.83	37.5	0.3	1.6	7434	25322	26208
990400	US 101	162.6	C, FI	Steamboat Cr	20.0574	0	20.91	2.3	BOX	CPC	1.83	1.83		0.3	1.6	7434	25322	26208
990400	US 101	162.6	C, FI	Steamboat Cr	20.0574	0	20.91	3.3	BOX	CPC	1.83	1.83		0.3	1.6	7434	25322	26208
991262	US 101	163.13	C	Pacific Ocean trib	20	0	14.25	1.1	BOX	PCC	1.83	1.83	52.4	1.65	3	1928	3087	4459
996224	US 101	164.57	C	Pacific Ocean trib	20	0		1.1	BOX	PCC	0.91	0.91	57.7	0	9.49	60		
996225	US 101	165.11	C	Cedar Cr trib	20	0		1.1	RND	PCC	0.61	0.61	53.8	0	12.57	86		
996226	US 101	166.34	C	Pacific Ocean trib	20	33		1.1	RND	PCC	0.61	0.61	17.2	0	0.87			
934255	US 101	167.52	C	Fletcher Cr trib	20	67		1.1	RND	PCC	0.46	0.46	15.6	0	1.79	84		
990551	US 101	168.3	C	Hoh R trib	20	67		1.2	BOX	PCC	1.52	1.52	26	0	0.81			
990551	US 101	168.3	C	Hoh R trib	20	67		2.2	BOX	PCC	1.52	1.52	26	0	0.81			
996227	US 101	168.49	C	unnamed Braden Cr trib trib	20	67		1.1	RND	PCC	0.61	0.61	15	0	0.93			
996228	US 101	169.19	C	Braden Cr trib	20	Unknown		1.1	RND	PCC	0.61	0.61	22.4	0	0.09			
990717	US 101	169.42	C	Braden Cr trib	20	67	15.08	1.1	BOX	PCC	0.91	0.91	18.5	0	1	1584	61	8424
990552	US 101	169.69	C	unnamed Braden Cr trib trib	20	Unknown	0	1.1	BOX	PCC	0.91	0.91	18.9	0	0.26	410	23	524
997051	US 101	169.89	C	unnamed Braden Cr trib trib	20	33	7.16	1.1	RND	CST	0.61	0.61	12.4	0	2.01	82	0	211
997052	US 101	169.94	C	Hoh R trib	20	33	8.11	1.1	RND	PCC	0.61	0.61	16.2	0	1	802	908	693
990553	US 101	170.12	C	Hoh R trib	20	Unknown		1.1	BOX	PCC	1.54	1.54	25	0	0.95			
990719	US 101	170.81	C	Hoh R trib	20	67	6.13	1.1	RND	CST	1.22	1.22	30.7	0	1.4	623	432	747
997053	US 101	170.87	C	unnamed Hoh R trib trib	20	33		1.1	RND	CST	1.52	1.52	19.6	0	1.12			
997054	US 101	171.29	C	Hoh R trib	20	67	10.92	1.1	RND	CST	0.61	0.61	19.6	0.03	0.36	1420	0	3050
990721	US 101	172.7	C	Hoh R trib	20	Unknown		1.1	RND	PCC	0.61	0.61	15.8	0	1.07			
997055	US 101	174.43	C	Hoh R trib	20	67		1.1	RND	PCC	0.46	0.46	33	0	3.3			
997059	US 101	174.79	C	Old Joe Sl trib	20	0		1.1	RND	CST	0.61	0.61	21.1	0	17	14		
991645	US 101	175.04	C	Old Joe Sl trib	20	0		1.1	RND	CST	0.84	0.84	26.2	0	25	188		
991647	US 101	175.45	C	Hoh R trib	20	67	20.6	1.1	BOX	PCC	1.52	1.52	20.1	0.03	0.5	3044	169	17116
933682	US 101	175.77	C	Hoh R trib	20	0	24.15	1.1	RND	OTH	0.61	0.61	87.1	0	9.22	809	41	10611
991598	US 101	175.91	C	Hoh R trib	20	33	17.98	1.1	RND	PCC	0.61	0.61	13.3	0	0.6	352	8	8405
997064	US 101	176.12	C	Hoh R trib	20	67		1.1	RND	OTH	0.46	0.46	14.4	0	1.5			
997065	US 101	176.3	C	Hoh R trib	20	33		1.1	RND	PCC	0.61	0.61	20.1	0	0.35			
997063	US 101	176.55	C	Hoh R trib	20	0		1.1	RND	PCC	0.61	0.61	17.2	0	1.4			
997066	US 101	177.35	C	unnamed trib	20	33	0.86	1.1	RND	CST	0.61	0.61	26.1	0	2.72	106	8	20
997068	US 101	177.58	C	Mill Cr trib	20	33		1.1	RND	CST	0.61	0.61	21.5	0	2.7	580		
997070	US 101	177.77	C	Hoh R trib	20	0		1.1	RND	CST	0.61	0.61	29.8	0.25	3.16	189		
997071	US 101	177.8	C	unnamed Hoh R trib trib	20	0		1.1	RND	CST	0.61	0.61	26.6	0.15	2.52			
997072	US 101	177.97	C	unnamed trib	20	33	1.17	1.1	RND	PCC	0.61	0.61	22.2	0.14	2.03	250	26	70
991595	US 101	178.09	C	unnamed trib	20	33		1.1	RND	PCC	0.91	0.91	24.2	0	3.72			
991589	US 101	178.3	C	Hell Roaring Cr trib	20	0	4.09	1.1	OTH	OTH	1.45	1.45	21.3	0.18	2	4102	4979	6882
991590	US 101	178.63	C	Hell Roaring Cr trib	20	0	2.59	1.1	RND	CST	0.76	0.76	24.4	0.7	4	801	182	1118
991591	US 101	179.13	C	Hell Roaring Cr trib	20	33	3.61	1.1	OTH	OTH	1.83	1.83	30.5	0.25	1	3433	5514	6314
991592	US 101	179.57	C	Hell Roaring Cr	20.0441	0	1.95	1.1	OTH	OTH	1.22	1.22	35	0.4	3	466	156	361
997078	US 101	179.73	C	Hell Roaring Cr trib	20	33		1.1	RND	PCC	0.46	0.46	19.5	0	1.8			

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991593	US 101	180.2	C	EF Hell Roaring Cr trib	20	0	2.07	1.1	OTH	OTH	1.22	0.93	42.7	0.05	1	316	0	459
991575	US 101	181.2	C	Downs Cr trib	20	33	13.89	1.2	BOX	CPC	1.52	1.52	21.3	0	1.31	1884	883	3166
991575	US 101	181.2	C	Downs Cr trib	20	33	13.89	2.2	BOX	PCC	1.52	1.52	21.3	0	1.31	1884	883	3166
991574	US 101	181.46	C	Downs Cr trib	20.0248A	33	8.24	1.1	RND	PCC	1.22	1.22	28.5	0	2.2	677	288	1585
991507	US 101	182.2	C	Downs Cr trib	20	0	13.25	1.1	OTH	OTH	1.22	0.91	49.8	0	3.31	1160	375	1658
991508	US 101	182.84	C	Downs Cr trib	20	0	9.05	1.1	RND	OTH	1.22	0.91	76.3	1.5	9.23	665	334	509
991509	US 101	183.05	C	Downs Cr trib	20	0	7.88	1.1	OTH	OTH	0.91	0.91	68.1	0.27	6.79	505	200	293
997081	US 101	183.11	C	Downs Cr trib	20	0	5.76	1.1	OTH	OTH	1.22	0.95	75	0.21	7.23	727	556	493
9971510	US 101	183.87	C	Bogachiel R trib	20	0	5.24	1.1	RND	OTH	0.91	0.91	27.2	3.2	5.1	134	152	362
990269	US 101	184.66	C	May Cr	20.0247	67	19.21	1.1	RND	GST	3.05	3.05	58.5	0	0.73	12990	22700	23129
997087	US 101	184.87	C	Bogachiel R trib	20	0	6.66	1.1	RND	PCC	0.61	0.61	28	2.33	3.6	299	68	151
997090	US 101	187.12	C	Bogachiel R trib	20	67		1.1	RND	PCC	0.46	0.46	14.7	0	3.7			
997091	US 101	187.18	C	Bogachiel R trib	20	67		1.1	RND	PCC	0.46	0.46	13	0	1.92			
991513	US 101	187.37	C	unnamed trib	20	0		1.1	RND	SST	0.91	0.91	33.8	0	20.78	29		
991515	US 101	187.79	C	Bogachiel R trib	20	0	2.16	1.1	RND	PCC	0.61	0.61	30.2	0	4.4	416	92	273
991505	US 101	188.09	C	Bogachiel R trib	20	0	8.75	1.1	RND	PCC	0.91	0.91	32.8	0	2.44	610	81	366
997093	US 101	188.19	C	Bogachiel R trib	20	0	9.87	1.1	RND	PCC	0.61	0.61	21.6	0.15	3.74	331	9	510
997095	US 101	188.42	C	Bogachiel R trib	20.0000	0	6.19	1.1	RND	PCC	0.61	0.61	26.9	0.13	3.63	308	13	186
997096	US 101	188.64	C	Bogachiel R trib	20.0000	0		1.1	RND	GST	0.61	0.61	23	0.51	4.92			
933421	US 101	189.14	C	Grader Cr trib	20	0		1.1	RND	PCC	0.76	0.76	19.8	0	4.29			
991264	US 101	189.25	C	Grader Cr trib	20	0	7.6	1.1	RND	PCC	0.61	0.61	24.4	0	3	302	46	164
990169	US 101	189.4	C, FI	Grader Cr	20.0237	33	18.62	1.1	BOX	PCC	3.05	3.05	36.9	0.3	3	4484	8071	17823
997098	US 101	190.05	C	Mill Cr trib	20	33	13.31	1.1	RND	PCC	1.22	1.22	27.4	0	1.02	626	91	832
997097	US 101	191.12	C	Uncle John's Cr	20	33	10.79	1.1	RND	PCC	0.91	0.91	18.7	0	1.34	1420	552	1113
997107	US 101	202.71	C	Sol Duc R trib	20	33	5.73	1.1	RND	PCC	0.91	0.91	42.3	0	1.51	428	7	86
990564	US 101	209.32	C	Wisen Cr	20.0336	67	13.7	1.1	RND	GST	1.52	1.52	21.3	0	0.66	3273	8239	6036
997108	US 101	210.22	C	Sol Duc R trib	20	67		1.1	RND	GST	0.91	0.91	17	0	0.59	159		
997109	US 101	210.78	C	Sol Duc R trib	20	67	7.42	1.1	RND	PCC	0.91	0.91	23.3	0	0.77	333	11	493
991565	US 101	221	C	Lake Crescent trib	19	33		1.1	BOX	PCC	1.36	1.24	37.1	0.3	1.42			
996391	US 101	222.11	C	Eagle Cr	19.0075	0		1.2	SQSH	GST	1.07	1.36	20.1	1.07	3.6	190		
996391	US 101	222.11	C	Eagle Cr	19.0075	0		2.2	SQSH	GST	1.08	1.33	20.1	0.45	3.6	190		
996393	US 101	223.76	C	LaPoel Cr	19.0073	0		1.1	BOX	CPC	1.86	1.87	19	0.46	7.4	150		
996398	US 101	226.24	C	Smith Cr	19.0069	33		1.1	BOX	CPC	1.83	1.84	19.3	0	3.4	140		
995808	US 101	232.85	C	Lake Sutherland trib	18	0	1.78	1.1	RND	PCC	0.46	0.46	28.5	0.04	6.4	117	21	60
995812	US 101	234.71	C	Indian Cr trib	18.0293	33	1.55	1.1	RND	PCC	1.22	1.22	29.4	0	2.6	43	37	51
995815	US 101	235.81	C	Indian Cr trib	18	67	4.1	1.1	RND	PCC	0.91	0.91	37.5	0	-0.13	105	0	91
995816	US 101	236.28	C	Indian Cr trib	18	33	5.2	1.1	RND	PCC	1.36	1.36	33.1	0	0.06	331	202	274
995817	US 101	236.35	C	Indian Cr trib	18	0	6.76	1.1	RND	SST	0.91	0.91	30	0.31	5.5	594	741	524
995818	US 101	237.98	C	Indian Cr trib	18	67	6.23	1.1	RND	PCC	0.46	0.46	32	0	1.31	673	37	490
18.0283	2.00	238.35	C, FI	Indian Cr	18.0283	33	75.84	1.1	OTH	CPC	5.96	4.5	64	0.55	3.88	17109	11854	115344
995823	US 101	239.31	C	Indian Cr trib	18	33		1.1	RND	PCC	0.61	0.61	29.9	0	1.54			
995826	US 101	240.23	C	Elwha R trib	18	0		1.1	ARCH	CPC	0.8	0.82	63.5	0.51	5.4	120		
995835	US 101	242.53	C	Elwha R trib	18.0277	0	2.71	1.1	BOX	CPC	0.91	0.91	25.1	0.42	4.3	1130	900	1342
995540	US 101	243.08	C	unnamed trib	18	0		1.1	BOX	CPC	0.9	0.93	25.2	0.05	12.3	160		

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990128	US 101	244 C		Dry Cr	18.0265	0	4.76	1.1 BOX	CPC		2.44	2.44	25	0.73	1	4478	5401	12805
995542	US 101	244.52 C		Dry Cr trib	18	33	3.91	1.1 RND	PCC		0.61	0.61	26.4	0	1.4	305	0	8709
932888	US 101	246.18 C		Tumwater Cr trib	18	0	5.43	1.1 RND	PCC		0.61	0.61	21.6	0	3.42	313	31	152
990448	US 101	246.4 C, FI		Tumwater Cr	18.0256	67	16.25	1.1 BOX	PCC		2.13	2.44				8928	8760	16969
990326	US 101	248.1 C		Peabody Cr	18.0245	0	12.95	1.1 RND	PCC		2.13	2.13	914.4	0	2	2296	875	2033
990481	US 101	249.4 C		White Cr	18.0235	0	20.02	1.1 OTH	OTH		1.37	1.37	215.3	0.5	3.07	6405	7067	12843
18.0234 1.10	US 101	250 C, FI		Ennis Cr	18.0234	33	25.05	1.1 BOX	CPC		3.05	2.45				8950	13853	33438
990240	US 101	250.5 C, FI		Lees Cr	18.0232	0	21.14	1.1 BOX	CPC		1.22	1.83	85.3		11	11288	10774	14173
995543	US 101	253.7 C		Bagley Cr trib	18	0	4.19	1.1 RND	CST		0.61	0.61	66.5	15		1815	252	7665
934250	US 101	253.84 C		Bagley Cr trib	18.0183	0		1.1 RND	CST		0.91	0.91	55.2	1.6	5.2			
990021	US 101	253.85 C, FI		Bagley Cr	18.0183	67	17.87	1.1 BOX	GPC		1.52	1.52	101.2	0	3.5	10450	11942	22028
995544	US 101	255.65 C		Siebert Cr trib	18	33		1.1 RND	PCC		0.46	0.46	41.3	0.2	1.4	186		
18.0173 2.40	US 101	256.1 C, FI		Siebert Cr	18.0173	33	29.11	1.2 BOX	CPC							54706	101027	122508
18.0173 2.40	US 101	256.1 C, FI		Siebert Cr	18.0173	33	29.11	2.2 BOX	CPC							54706	101027	122508
994471	US 101	256.9 C		Strait of Juan de Fuca trib	18	0	2.48	1.1 RND	PCC		0.65	0.65	38.4	0	6.5	488	246	938
933191	US 101	260.93 FI		Matriotti Cr	18.0021	67												
933369	US 101	263.43 C		Sequim Prairie Tri irrigation ditch	18	0		1.1 RND	PVC		0.76	0.76	103	1				
995551	US 101	263.68 C		Sequim Prairie Tri irrigation ditch	18.0036	0		1.1 RND	PVC		0.76	0.76	85	1				
995481	US 101	266.59 C		Johnson Cr trib	17	0		1.1 RND	PCC		0.61	0.61	61.8	0	1.4			
990219	US 101	267.18 C, FI		Johnson Cr	17.0301	67	28.42	1.1 BOX	PCC		3.05	3.05	69.5	0.52	2	7252	6227	18912
991667	US 101	268.54 C		Sequim Bay trib	17.0300	0	16.42	1.1 RND	OTH		0.91	0.91	111.1	0.23	7	5201	1419	11103
991666	US 101	269.24 C		Sequim Bay trib	17.0297	0	8.54	1.1 RND	PCC		0.91	0.91	44.9	0	5	861	598	839
994464	US 101	269.49 C		Sequim Bay trib	17.0296	0		1.1 RND	PCC		0.91	0.91	76.4	1	5.7			
991735	US 101	271.22 C		Sequim Bay trib	17	67	8.27	1.1 RND	PCC		0.61	0.61	33	0	0.75	317	0	609
994478	US 101	271.22 C		Sequim Bay trib	17	67	8.27	1.1 RND	PCC		0.61	0.61	13.6	0	1.1	283	0	609
990712	US 101	271.57 C		Sequim Bay trib	17.0284	0	10.43	1.1 RND	OTH		0.76	0.76	119	0.29	6.18	799	181	429
991850	US 101	271.83 C		Sequim Bay trib	17	0	10.93	1.1 RND	PCC		0.61	0.61	37.7	0	3	1625	775	1683
990075	US 101	271.98 C		Chicken Coop Cr	17.0278	0	17.23	1.1 BOX	PCC		0.91	1.22	53.3	1.13	2	6092	3383	5607
990134	US 101	274.25 C		Eagle Cr	17.0272	0	15.85	1.1 RND	PCC		0.46	0.46	20.5	0	2.14	4084	1124	5006
995484	US 101	275.72 C		Eagle Cr trib	17	0	8.66	1.1 RND	PCC		0.91	0.91	39.3	0	3.36	518	99	255
995485	US 101	276.22 C		Discovery Bay trib	17	33	4.41	1.1 RND	PCC		0.61	0.61	36.7	0.04	0.98	792	541	962
990090	US 101	277.9 C		Contractors Cr	17.0270	0	15.67	1.1 BOX	PCC		1.22	1.22	73.2	0.37	2	3787	1132	3597
995488	US 101	278.66 C		Discovery Bay trib	17.0269	0		1.1 RND	PCC		0.61	0.61	40.9	0.9	1.9	150		
995489	US 101	279.76 C		Discovery Bay trib	17.0268	0		1.1 RND	PCC		0.91	0.91	68.2	0.35	13.1			
995490	US 101	281.61 C		Discovery Bay trib	17	0	5.56	1.1 RND	PCC		0.73	0.73	40.9	1.9	5.5	980	395	437
995491	US 101	281.72 C		Discovery Bay trib	17	0	11.83	1.1 RND	PCC		0.61	0.61	122.2	0.11	2.9	2014	1200	2337
995493	US 101	282.01 C		Discovery Bay trib	17	0		1.1 RND	OTH		0.46	0.46	61.7	0.52	2.37	100		
995497	US 101	283.57 C		Snow Cr trib	17	0	13.83	1.1 SQSH	CST		1.64	1.11	25.5	0.55	8.54	1152	1343	1411
995496	US 101	284.87 C		Snow Cr trib	17	0		1.1 RND	CST		0.76	0.76	97.1	0.36	2.3			
995760	US 101	284.87 C		Snow Cr trib	17	0		1.1 RND	CST		0.61	0.61	35.4	1.5	6.93			
991673	US 101	285.69 C		Andrews Cr	17.0221	67		1.2 RND	CST		1.91	1.91	21.9	0	0.14			
991673	US 101	285.69 C		Andrews Cr	17.0221	67		2.2 RND	CST		1.91	1.91	22.9	0	0.52			
995499	US 101	286.36 C		Leland Cr trib	17	67	6.76	1.1 RND	PCC		0.46	0.46	16.8	0	1.61	379	21	280
995500	US 101	289.91 C		Leland Cr trib	17	67		1.1 RND	PCC		0.61	0.61	19.3	0	1.39	50		

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990896	US 101	290.35	C	Leland Cr trib	17.0080	67	19.76	1.2	BOX	CPC	1.83	1.22	13.7	0	0.17	3700	2620	7269
990896	US 101	290.35	C	Leland Cr trib	17.0080	67	19.76	2.2	BOX	CPC	1.83	1.22	14.3	0	0.56	3700	2620	7269
930373	US 101	291.73	C	Leland Cr trib	17	Unknown		1.2	RND	CST	0.61	0.61	18.3	0	1.31	97		
930373	US 101	291.73	C	Leland Cr trib	17	Unknown		2.2	RND	PCC	0.46	0.46	16.5	0	0.3	97		
995502	US 101	291.79	C	Leland Cr trib	17.0079	33	13.05	1.1	RND	PCC	0.61	0.61	20.8	0	2.1	2066	465	779
990241	US 101	292.52	C	Leland Cr	17.0077	33	37.81	1.1	BOX	CPC	2.45	1.83	44.1	0	-0.04	23068	6708	67554
995509	US 101	299.86	C	Spencer Cr	17.0004	33		1.2	RND	PCC	0.61	0.61	17.8	0	1.18			
995509	US 101	299.86	C	Spencer Cr	17.0004	33		2.2	RND	PCC	0.61	0.61	18.2	0	1.32			
995510	US 101	300.19	C	Spencer Cr trib	17	67		1.1	RND	PCC	0.61	0.61	30.7	0	0.69			
995513	US 101	300.35	C	Spencer Cr trib	17	33		1.1	RND	PCC	0.91	0.91	16.6	0.09	3.2	90		
995515	US 101	300.62	C	Spencer Cr trib	17	33		1.1	RND	PCC	0.61	0.61	13.6	0.13	5.6	70		
995518	US 101	301.88	C	Spencer Cr	17.0004	33		1.1	BOX	CPC	1.84	1.85	29.4	0.25	1.08			
994484	US 101	303.01	C	Marple Cr	17.0001	33	20.05	1.1	ELL	CST	3.13	2.91	55.1	0	2.8	2755	2943	6506
990449	US 101	304.24	C	Turner Cr	16.0559	0		1.1	RND	PCC	1.22	1.22	36.6	0.46	9	96		
995931	US 101	305.59	C	Hood Canal trib	16	0	6.11	1.1	RND	CST	0.61	0.61	45.6	1.1	5.73	565	344	539
990899	US 101	307	C	Twana Cr	16.0441	33	13.42	1.1	BOX	CPC	1.83	1.83	31.1	0	1.2	1115	2072	1207
995954	US 101	308.74	C	Hood Canal trib	16	0		1.1	RND	OTH	0.46	0.46	32.2	0.65	22.52	168		
995936	US 101	310.4	C	Hood Canal trib	16	Unknown	0	1.1	BOX	CPC	1.17	1.23	21	0.19	3.71	780	484	2896
995939	US 101	311.16	C	Hood Canal trib	16.0350	0		1.1	BOX	CPC	1.25	1.23	27	0.79	7.9			
991603	US 101	314.1	C	Hood Canal trib	16.0331	0	7.59	1.2	BOX	CPC	1.83	1.83	23.3	0.45	2.47	494	476	1274
991603	US 101	314.1	C	Hood Canal trib	16.0331	0	7.59	2.2	BOX	CPC	1.83	1.83	23.3	0.45	2.47	494	476	1274
991604	US 101	314.38	C	Hood Canal trib	16	0		1.1	RND	PCC	0.91	0.91	17.1	0.46	12.6	40		
996104	US 101	314.88	C	Hood Canal trib	16	67		1.1	RND	PCC	0.46	0.46	11.3	0	0.53			
991606	US 101	315.19	C	Schaerer Cr	16.0326	67	17.4	1.2	BOX	CPC	1.83	1.22	16.5	0	1.6	250	542	580
991606	US 101	315.19	C	Schaerer Cr	16.0326	67	17.4	2.2	BOX	CPC	1.83	1.22	16.5	0	1.6	250	542	580
996108	US 101	316.06	C	Hood Canal trib	16	0		1.1	RND	PCC	0.91	0.91	19.2	2.5	17.7	192		
996109	US 101	316.3	C	Hood Canal trib	16	0		1.1	BOX	CPC	1.83	1.83	16.5	0.19	5.4	15		
996120	US 101	317.39	C	Hood Canal trib	16	0		1.1	RND	PCC	0.61	0.61	26.5	0.49	12.5	65		
991615	US 101	317.45	C	Hood Canal trib	16	0	2.14	1.1	BOX	CPC	1.22	1.22	21	1.15	6.18	360	193	261
991614	US 101	322.83	C	Hood Canal trib	16	0	7.75	1.2	RND	PCC	0.91	0.91	29.2	0.43	3.76	531	430	768
991614	US 101	322.83	C	Hood Canal trib	16	0	7.75	2.2	RND	PCC	0.91	0.91	28.7	0.46	3.72	531	430	768
991608	US 101	324.09	C	Hood Canal trib	16	0	2.66	1.1	RND	PCC	0.91	0.91	22.6	0	4			
991610	US 101	324.31	C	Hood Canal trib	16	0	4.97	1.1	RND	PCC	0.91	0.91	36.3	0	4.4	400	192	360
996135	US 101	325.68	C	Hood Canal trib	16	67	3.35	1.1	RND	PCC	1.07	1.07	22.5	0	0.3	575	1049	565
931509	US 101	325.7	D	Hood Canal trib	16	33	3.12									568	1036	588
996138	US 101	327.76	C	Little Lilliwaup Cr	16.0228	67	18.34	1.1	BOX	CPC	2.45	1.87	14.9	0	1.6	2058	4968	4953
990407	US 101	329.15	C	Hood Canal trib	16	0		1.1	RND	PCC	0.61	0.61	20.1	1.37	6	76		
996355	US 101	329.73	C	Hood Canal trib	16	0		1.2	RND	PCC	0.61	0.61	15.4	0.45	7.5	90		
996355	US 101	329.73	C	Hood Canal trib	16	0		2.2	RND	CST	0.61	0.61	16.2	0.8	12	90		
996356	US 101	330.25	C	Hood Canal trib	16	0	3.49	1.1	RND	PCC	0.61	0.61	17.9	0	9.5	230	232	179
996358	US 101	331.18	C	Hood Canal trib	16	0		1.1	RND	PCC	0.61	0.61		0		34		
991254	US 101	331.83	C	Hood Canal trib	16	0	7.84	1.2	BOX	PCC	0.96	0.96	121.4	0	4.6	512	334	408
991254	US 101	331.83	C	Hood Canal trib	16	0	7.84	2.2	RND	PCC	0.95	0.95				512	334	408
996360	US 101	332.15	C	Hood Canal trib	16	0	1.73	1.1	RND	CST	0.61	0.61	19.6	0.86	3.83	230	223	223

Appendix IC. WSDOT Olympic Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990191	US 101	332.65	C	Hill Cr	16.0221	67	19.5	1.1	BOX	CPC	2.44	1.83	22.3	0	2.99	518	1070	1135
996366	US 101	334.4	C	Hood Canal trib	16	67	6.57	1.1	RND	PCC	0.3	0.3	17	0.34	0.88	629	42	643
991250	US 101	335.93	C	Hood Canal trib	16	33	0	1.1	RND	PCC	0.61	0.61	16.1	0.08	0.19			
996371	US 101	338.37	C	Skobob Cr trib	16	67	7.84	1.1	RND	PCC	0.46	0.46	19.6	0	0.46	469	0	397
996374	US 101	341.57	C	Purdy Cr	16.0005	67		1.1	RND	CAL	0.91	0.91	17.2	0	1.08			
115 MC093	US 101	346.95	C, FI	Coffee Cr	14.0036	67	28.97	1.3	RND	CST	1.33	1.45	130.1	0.02	1.41	21444	11069	52066
115 MC093	US 101	346.95	C, FI	Coffee Cr	14.0036	67	28.97	2.3	RND	CST	1.3	1.4	130		1.48	21444	11069	52066
115 MC093	US 101	346.95	C, FI	Coffee Cr	14.0036	67	28.97	3.3	RND	CST	1.3	1.4	130		1.3	21444	11069	52066
115 MC180	US 101	348.21	C	Mill Cr trib	14	33	10.54	1.1	RND	CST	0.91	0.91	67.5	0.1	1.8	445	190	473
997158	US 101	354.01	C	Skookum Cr trib	14	0	9.77	1.1	RND	PCC	0.91	0.91	47	0.53	1.55	1486	356	980
997159	US 101	354.22	C	Skookum Cr trib	14	33		1.1	RND	PCC	0.91	0.91	59.7	0	2.13	70		
115 MC144	US 101	355.58	C	Totten Inlet trib	14	0	11.95	1.1	RND	CST	1.2	1.3	72.4	0.12	2.18	749	99	437
997157	US 101	356.48	C	Schneider Cr trib	14	33	5.46	1.1	RND	PCC	0.91	0.91	58.8	0.55	1.57	520	0	143
14.0010 0.10	US 101	356.8	C, FI	Countyline Cr	14.0010	33	14.43	1.1	RND	PCC	1.52	1.52	65.2	0	2.46	753	1428	1758
997161	US 101	357.4	C	Griggs Cr	14	33	15.52	1.1	RND	PCC	0.91	0.91	63.9	0	3.93	1709	372	2428
991477	US 101	360.6	C	Eld Inlet trib	14.0002A	33	10.1	1.1	BOX	PCC	1.83	1.83	103.4	0.3	4.66	331	266	350
115 MC276	US 101	361.22	C	Eld Inlet trib	14	0	3.37	1.1	RND	CST	0.95	0.95	92.9	0.22	11.96	202	84	146

¹Field Codes

Codes Used for Culvert Shape

ARCH - bottomless arch
 BOX - rectangular or square
 ELL - ellipse
 OTH - other
 RND - round
 SQSH - squash (pipe arch)

Codes Used for Culvert Materials

CAL - corrugated aluminium
 CMP - corrugated metal pipe
 CPC - cast in place concrete
 CST - corrugated steel
 OTH - other

Feature Type

B - bridge
 C - culvert
 D - dam
 DL - dike/levee
 EC - erosion control
 F - fill/puncheon
 FD - fill/debris
 FI - fishway
 FL - flume

²The culvert # identifies individual culverts at multiple stream crossings. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991753	I-5	3.07 C		Burnt Bridge Cr	28.0143	67	21.33	1.1 BOX	CPC		1.82	1.82	140.8	0	1.08	19184	14302	67438
990085	I-5	3.31 C		Cold Cr	28.0144	0	18.56	1.1 RND	OTH		1.2	1.2	71.3	1.6	3	4200	3728	6393
994304	I-5	5.98 C		Salmon Cr trib	28	67	3.67	1.1 RND	PCC		1.07	1.07	106.9	0	0.29	709		
994305	I-5	6.1 C		Salmon Cr trib	28	67	3.7	1.1 RND	PCC		1.07	1.07	109.6	0.15	0.83	453		
994306	I-5	6.29 C		Salmon Cr trib	28	33	4.56	1.1 RND	PCC		1.07	1.07	31.7	0.55	0.85	10		
991793	I-5	7.92 C		Whipple Cr trib	28.0050	67	6.46	1.1 RND	PCC		0.91	0.91	111.8	0	2.18	498	0	206
991792	I-5	8.07 C		Whipple Cr trib	28	0	11.06	1.1 RND	PCC		0.76	0.76	144.4	1.01	1.02	531	22	402
991794	I-5	8.42 C		Whipple Cr	28.0038	0	19.29	1.1 BOX	PCC		1.83	1.83	213.4	0	3	6549	1342	11743
991795	I-5	8.68 C		Whipple Cr trib	28	0	5.44	1.1 RND	PCC		0.61	0.61	165.2	0.33	1.6	251	3	70
931559	I-5	9.55 C		Whipple Cr trib	28.0051	33	12.05	1.1 RND	PCC		0.91	0.91	335	0	1.35	975	0	1802
994628	I-5	11.26 C		Gee Cr trib	27.0168A	67	9.9	1.1 RND	PCC		1.37	1.37	11.9	0	0.03	2454	0	3122
991844	I-5	11.44 C		Gee Cr trib	27.0168A	33	12.01	1.1 BOX	CPC		1.22	1.22	36.9	0	0.01	2623	3	3331
991846	I-5	12.42 C		Gee Cr	27.0168L	67	16.01	1.1 OTH	OTH		3.05	3.05	128.7	0	0	13140	3	21407
991847	I-5	13.2 C		Gee Cr trib	27.0168J	33	16.61	1.1 BOX	CPC		2.44	2.9	113.7	0.2	0.01	6662	16	12214
994555	I-5	25.2 C		Canyon Cr	27.0147	0		1.1 RND	CST		1.43	1.43		0.9		169		
991039	I-5	25.31 C		Canyon Cr	27.0147	0		1.1 RND	CST		1.43	1.43	38.7	0.4	3	292		
994588	I-5	25.85 C		Mill Cr	27.0144	33	14.93	1.1 RND	CPC		1.82	1.82	68.1	0.35	1.61	1464	1595	5744
994553	I-5	25.92 C		Mill Cr	27.0144	33	14.96	1.1 BOX	CPC		1.83	1.85	79.6	0	3.81	1184	1510	2894
990055	I-5	26.83 C		Bybee Cr	27.0142	0	12.36	1.1 BOX	PCC		2.44	1.83	98.2	0	5	1070	1482	1901
991665	I-5	27.8 C		Schoolhouse Cr	27.0139	0	15.66	1.2 BOX	PCC		1.83	1.83	339.2	0.09	2.5	4060	1353	4845
991665	I-5	27.8 C		Schoolhouse Cr	27.0139	0	15.66	2.2 RND	CST		1.83	1.83	339.2	0.09	2.5	4060	1353	4845
991436	I-5	29.25 C		Columbia R trib	27.0137	67	18.12	1.1 RND	CST		0.91	0.91	55.3	0	0.21	6078	1637	12633
994591	I-5	29.81 C		Columbia R trib	27.0136	33		1.1 OTH	OTH		0.91	0.91	149.4	0	2.16	155		
998211	I-5	36.67 C		unnamed trib	26	0		1.1 RND	PCC		0.91	0.91		0				
996199	I-5	38.02 C		Coweean R trib	26	0		1.1 RND	PCC		0.76	0.76	137.3	0	4.5			
992332	I-5	41.62 C		King Cr	26.0127	0	12.82	1.1 RND	SPS		1.6	1.6	186	0		2997	705	1385
992331	I-5	42.29 C		Cowlitz R trib	26.0128	33	9.44	1.1 RND	SST		0.9	0.9	147.5	0		1402	213	381
992581	I-5	44.29 C		Cowlitz R trib	26.0180	0	5.7	1.1 RND	CST		0.9	0.9	152	0	1	852	155	274
992590	I-5	46.77 C		Cowlitz R trib	26.0186A	67	9.77	1.1 RND	CST		1.55	1.55		0	2	931	292	1257
992591	I-5	47.49 C		Salmon Cr trib	26	33	5.05	1.1 BOX	CPC		1.25	1.55	136.8	0	0.71	477	75	303
992592	I-5	47.88 C		Salmon Cr trib	26.0188	67		1.1 RND	CST		2.2	2.2		0		180		
992602	I-5	53.07 C		Cowlitz R trib	26	33	18.36	1.1 RND	PCC		1.05	1.05	90.8	0.27	0.09	3210	340	3587
992608	I-5	53.9 C		Cowlitz R trib	26	0	8.12	1.1 RND	CST		0.9	0.9	260	0		667	121	276
992343	I-5	54.4 C		Cowlitz R trib	26	0		1.1 RND	PCC		0.75	0.75	86.6	0.83	1.4	0	0	0
992355	I-5	54.93 C		Hill Cr trib	26	0	1.43	1.1 RND	PCC		0.75	0.75	88.7	0		204	17	54
991734	I-5	57.98 C		Foster Cr trib	26.0476	0	11.99	1.1 BOX	CPC		1.52	1.52	89.3	0.94	5	3507	160	1351
990152	I-5	58.63 C		Foster Cr	26.0475	33	20.55	1.1 BOX	CPC		3.05	2.43	52.3	0.68	0.02	6939	2096	4772
995538	I-5	71.34 C		unnamed Newaukum R trib trib	23	67		1.1 RND	PCC		0.61	0.61	67.7	0	0.01			
994300	I-5	78.11 C		Dillenbaugh Cr trib	23	33		1.1 RND	PCC		0.76	0.76	135	0	1.34	285		
995862	I-205	0.34 C		Columbia R trib	28	0		1.1 RND	PCC		0.46	0.46	317.9	0	0.7			
995866	I-205	32.28 C		Curtin Cr trib	28	0		1.1 RND	CST		1.07	1.07	67.5	0.38	1.7			
995867	I-205	32.77 C		Curtin Cr	28.0085	33		1.2 RND	CST		1.07	1.07	109.4	0	0.4			
995867	I-205	32.77 C		Curtin Cr	28.0085	33		2.2 RND	CST		1.07	1.07	108.2	0	0.3			
997193	I-205	35.18 C		unnamed trib	28.0050	0		1.1 RND	CST		1.07	1.07	173.9	0.9	0.83			

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Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
997194	I-205	35.83 C	Salmon Cr trib	28	67			1.1 RND	CST		0.76	0.76	136.6		0	0.48		
991342	SR 4	0.68 C	Roaring Cr Sl	24	Unknown			1.1 RND	CST		0.9	0.9	26		0.6	0.85	204	
992398	SR 4	2.1 C	Naselle R trib	24	0			1.1 RND	PCC		0.6	0.6	39.4		0	3.5	127	
991375	SR 4	3.8 C	Naselle R trib	24.0575A	67	11.93		1.1 RND	CST		0.75	0.75	23.4		0	0.85	1877	1702
992401	SR 4	5.41 C	Naselle R trib	24	33			1.1 RND	PCC		0.45	0.45	19.5		0	1.6		
991344	SR 4	5.88 C	Naselle R trib	24	67			1.1 BOX	CPC		1.3	1.3	15		0	1.46		
991372	SR 4	6.36 C	Naselle R trib	24.0543A	0			1.1 RND	PCC		0.6	0.6	28.5		0.09	1.5	45	
991346	SR 4	6.97 C	Salmon Cr trib	24.0622	0	17.63		1.1 RND	SST		0.9	0.9	36.3		0.05	2.34	669	646
991347	SR 4	7.34 C	Salmon Cr trib	24.0624	67	11.4		1.1 RND	PCC		0.76	0.76	23.2		0	0.08	1128	176
992403	SR 4	7.59 C	Salmon Cr trib	24	33	13.19		1.2 RND	PCC		0.75	0.75	28.4		0.1	0.81	954	270
992403	SR 4	7.59 C	Salmon Cr trib	24	33	13.19		2.2 RND	PCC		0.75	0.75	27.5		0.14	0.51	954	270
992405	SR 4	8.21 C	Salmon Cr trib	24	33	13.66		1.1 RND	PCC		0.76	0.76	15.6		0.2	2.9	1021	528
991349	SR 4	8.42 C	Salmon Cr trib	24	Unknown			1.1 RND	PCC		0.76	0.76			0.1	2.3	141	
991381	SR 4	8.73 C	Salmon Cr trib	24.0620A	0	9.38		1.1 RND	PCC		0.75	0.75	32.3		0.02	2	300	16
990109	SR 4	10.49 C	Campbell Cr trib	25	67	25.83		1.1 BOX	PCC		1.83	1.22	27.5		0	0	17808	4265
990110	SR 4	10.61 C	Lassila Cr	25.0077	67	25.83		1.1 OTH	CPC		1.52	1.07	34.2		0	0.6	17808	4265
990371	SR 4	13.7 C	Seal Cr	25.0104	0	30.7		1.1 BOX	PCC		1.37	1.37	15.9		0	-1.63	4079	190
998998	SR 4	14.01 C	Seal Sl trib	25	0			1.1 RND	PCC		0.61	0.61	29.8		0.11	9.6	91	
999000	SR 4	15.08 C	Grays R trib	25	0			1.1 RND	PCC		0.83	0.83	29.8		0	8.9		
998685	SR 4	16.81 C	Grays R trib	25	67	5.71		1.1 RND	PCC		0.91	0.91	18.8		0	1.16	241	38
991396	SR 4	17.19 C	Grays R trib	25	67	9.17		1.1 RND	PCC		0.53	0.53	51.7		0	1.43	648	60
998688	SR 4	17.84 C	Hull Cr trib	25	33			1.1 RND	PCC		0.91	0.91	14.3		0	3.4	142	
998690	SR 4	18.61 C	Grays R trib	25	0			1.1 RND	OTH		0.76	0.76	49		0	6.5	199	
991421	SR 4	18.8 C	Grays R trib	25.0093A	33	8.92		1.1 RND	PCC		0.91	0.91	24.4		0	2.5	714	258
998695	SR 4	21.24 C	Klints Cr trib	25	0			1.1 RND	OTH		0.91	0.91	69.3		3.5	7.67	134	
998698	SR 4	23.06 C	Eggman Cr trib	25	0			1.1 RND	OTH		0.91	0.91	60.6		0.24	10.6		
998544	SR 4	23.19 C	Eggman Cr trib	25	0			1.1 RND	OTH		0.91	0.91	82.2		0	4.68	70	
991398	SR 4	26.25 C	WF Skamokawa Cr trib	25	67	11.93		1.1 RND	PCC		0.91	0.91	21.7		0	1.7	1189	429
991399	SR 4	26.65 C	Skamokawa R trib	25	67			1.1 RND	PCC		0.91	0.91	29.8			0.07		
998554	SR 4	30 C	Brooks Sl trib	25	33			1.1 RND	PCC		0.91	0.91	24.4		0	2.7	107	
991422	SR 4	30.35 C	Brooks Sl trib	25	0	3.18		1.1 RND	PCC		1.22	1.22	28		0.37	2.5	53	0
998557	SR 4	30.57 C	Brooks Sl trib	25	0			1.1 RND	PCC		0.76	0.76	22.3		0.75	0		
991402	SR 4	32 C	Risk Cr trib	25	33			1.1 RND	PCC		0.61	0.61	30.9		0.24	0.7		
990305	SR 4	33.15 C	Indian Jack Sl	25.0237	33	26.28		1.1 RND	PCC		0.91	0.91	43.3			-0.2	5517	0
998991	SR 4	35.7 C	Birnie Cr trib	25.0000	33			1.1 RND	PCC		0.91	0.91	30.4		0	1.55		
998993	SR 4	36.59 C	Columbia R trib	25	33			1.1 RND	PCC		0.46	0.46	43.2			4		
991407	SR 4	36.88 C	Columbia R trib	25	33			1.1 BOX	CPC		1.27	1.83	55.6		0	2.9	65	
999008	SR 4	37.16 C	Columbia R trib	25	0			1.1 BOX	CPC		0.91	0.91	75		0.07	4	82	
998671	SR 4	41.94 C	Columbia R trib	25	33			1.1 RND	CAL		0.91	0.91	18.2		0.4	0.88	150	
999004	SR 4	52.28 C	Coal Cr Sl trib	25.0332	67			1.1 RND	CST		1.22	1.22	42.9		0	0.82		
990774	SR 6	0.75 C	Case Pond	24	0			1.1 RND	CAL		0.75	0.75	19.3		4	5.2	0	0
991355	SR 6	2.96 C	Willapa R trib	24	67	6.39		1.1 RND	PCC		0.75	0.75	17.3		0	1.7	201	0
990802	SR 6	4.82 C	Willapa R trib	24	67			1.1 RND	PCC		1.05	1.05	17.3		0	1.56	50	
990806	SR 6	6.31 C	Willapa R trib	24	33	14.77		1.1 RND	PCC		0.9	0.9	14.9		0.2	0.4	3815	200
990813	SR 6	8.32 C	Willapa R trib	24	33	11.33		1.1 RND	PCC		0.91	0.91	24.5		0	1.7	1556	25

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ³	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990816	SR 6	9.83 C	Willapa R trib		24	33	12.84	1.1 RND	PCC	PCC	0.6	0.6	15.7	0	1.28	1350	0	1149
990817	SR 6	9.98 C	Willapa R trib		24	33	4.09	1.1 RND	PCC	PCC	0.76	0.76	13.5	0	2.52	1595	119	406
990782	SR 6	11.69 C	Willapa R trib		24	0		1.1 RND	PCC	PCC	0.61	0.61	39.1		5.7	136		
990790	SR 6	17.36 C	Fern Cr to Willapa R trib		24	33	8.27	1.1 BOX	CPC	CPC	1.08	1.28	16.6	0	0.18	250	13	194
992424	SR 6	21.27 C	Fern Cr trib		24	0	8.08	1.1 RND	PCC	PCC	0.62	0.62	84	0.03	2.9	893	46	141
990735	SR 6	22.64 C	Salmon Cr		23,1166	33	14.43	1.1 BOX	CPC	CPC	2.44	1.83	19.2	0	-0.57	5736	7247	7329
990736	SR 6	22.94 C	Salmon Cr trib		23	33	10.31	1.1 RND	PCC	PCC	0.61	0.61	21.1	0	2.4	1755	2378	1894
990737	SR 6	23.49 C	Rock Cr trib		23	67	5.92	1.1 RND	PCC	PCC	0.61	0.61	27.6	0	5.5	526	258	424
991654	SR 6	24.3 C	Rock Cr trib		23	0	3.74	1.1 RND	PCC	PCC	0.76	0.76	21.6	0	7.3	158	38	87
990141	SR 6	24.63 C	Rock Cr trib		23	33		1.1 RND	PCC	PCC	0.61	0.61	27.3	0	3.4	146		
990738	SR 6	25.24 C	Rock Cr trib		23	33	7.85	1.1 RND	PCC	PCC	0.61	0.61	16.1	0	3.9	852	190	612
990740	SR 6	26.36 C	Rock Cr trib		23	0		1.1 RND	PCC	PCC	0.61	0.61	32.6	0	4.9			
990473	SR 6	27.49 C	Water Mill Cr		23,1156	67		1.1 BOX	CPC	CPC	1.22	1.22	27.3	0	0.4	200		
990741	SR 6	29 C	Chehalis R trib		23	67		1.1 RND	PCC	PCC	0.61	0.61	20.2	0	1.8	246		
990744	SR 6	31.06 C	SB Fronia Cr		23,1145	Unknown	16.38	1.1 RND	PCC	PCC	0.91	0.91	14.6	0	-0.07	5602	2342	23720
990746	SR 6	31.08 C	SB Fronia Cr		23,1145	Unknown	16.38	1.1 RND	CAL	CAL	0.61	0.61	13.9	0.14	0.72	5602	2342	23720
930852	SR 6	33.3 C	Chehalis R trib		23	67	5.39	1.1 RND	PCC	PCC	0.46	0.46	13	0	1.07	462	0	277
990751	SR 6	33.56 C	unnamed trib		23	67	6.24	1.2 RND	CAL	CAL	0.91	0.91	15.2	0	1.2	831	0	499
990751	SR 6	33.56 C	unnamed trib		23	67	6.24	2.2 RND	PCC	PCC	0.61	0.61	14.6	0	1.5	831	0	499
990753	SR 6	34 C, FI	Chehalis R trib		23	33	1.64	1.1 RND	PCC	PCC	0.61	0.61	12.5	0	2.6	938	152	135
990755	SR 6	34.85 C	Chehalis R trib		23,1098	67	12.81	1.1 RND	OTH	OTH	0.91	0.91	16.5	0	1.58	2189	683	3993
990756	SR 6	35.08 C	Chehalis R trib		23	0	5.19	1.1 RND	CAL	CAL	0.61	0.61	25.1	0.85	5.54	557	121	310
991542	SR 6	35.18 C	Chehalis R trib		23,1098	0		1.1 RND	PCC	PCC	0.76	0.76	24.9	0.47	7.2	11		
990757	SR 6	35.42 C	Chehalis R trib		23	67	5.76	1.1 RND	PCC	PCC	0.61	0.61	16.2	0	1.48	1122	70	894
990758	SR 6	35.85 C	Chehalis R trib		23	0	5.39	1.1 RND	PCC	PCC	0.91	0.91	26.7	0	8.3	1222	635	574
990405	SR 6	36.21 C	Chehalis R trib		23	33		1.1 RND	CST	CST	0.61	0.61	28	0	-0.14			
990423	SR 6	36.74 C	Hope Cr trib		23	0	6.98	1.1 RND	CST	CST	0.46	0.46	20.8	0.3	2.02	597	30	127
990764	SR 6	42.38 C	unnamed trib		23	67		1.1 BOX	CPC	CPC	1.07	0.91	20.4	0	0.5	189		
991221	SR 6	43.61 C	Chehalis R trib		23	0	12.6	1.1 RND	OTH	OTH	0.76	0.76	49.1	1.45	8.44	1074	569	1849
991544	SR 6	46.39 C	Chehalis R trib		23,0949	67	19.76	1.1 RND	SPS	SPS	2.06	2.06	42.2	0	0.3	12739	4904	25156
991757	SR 6	46.5 C	Chehalis R trib		23,0949	67	16.74	1.1 RND	SPS	SPS	2.52	2.52	67.9	0	0.5	13052	4904	25869
990825	SR 7	2.73 C	Tilton R trib		26	33		1.1 RND	PCC	PCC	0.61	0.61	16.6	0	-0.9			
990826	SR 7	3.36 C	Tilton R trib		26	0	11.95	1.1 RND	PCC	PCC	0.9	0.9	17.5	0.55	1.25	995	1105	1433
990831	SR 7	5.5 C	Tilton R trib		26	0	15.13	1.2 BOX	CPC	CPC	1.52	1.52	32.3	0.12	3.6	784	548	1736
990831	SR 7	5.5 C	Tilton R trib		26	0	15.13	2.2 BOX	CPC	CPC	1.52	1.52	32.4	0.12	3.8	784	548	1736
990832	SR 7	5.64 C	Tilton R trib		26	0		1.1 BOX	CPC	CPC	1.24	1.24	19	0	6.5	10		
990833	SR 7	6.91 C	Tilton R trib		26	0	3.12	1.1 BOX	CPC	CPC	1.22	1.22	41.7	0	8	1055	898	1229
990836	SR 7	7.36 C	Tilton R trib		26	0		1.1 BOX	CPC	CPC	1.83	1.22	27.3	0	0.6	58		
990840	SR 7	8.18 C	Tilton R trib		26	67		1.1 RND	PCC	PCC	0.76	0.76	12.9	0.25	1.3			
990841	SR 7	8.89 C	Tilton R		26	0	4.41	1.1 BOX	CPC	CPC	1.54	0.93	18.2	0.55	0.7	2296	2955	4894
990690	SR 7	9.85 C	Roundtop Cr trib		11	0		1.1 RND	PCC	PCC	0.91	0.91	34.8	0.76	1			
990657	SR 7	10.25 C	Summit Cr trib		11	0		1.1 BOX	CPC	CPC	1.22	1.22	19.8	0.4	11			
990691	SR 7	10.48 C	Round Top Cr trib		11	33		1.2 BOX	PCC	PCC	0.91	0.91	14.9	0	6.2			
990691	SR 7	10.48 C	Round Top Cr trib		11	33		2.2 RND	PCC	PCC	0.76	0.76	16.7	0	3.1			
990658	SR 7	10.81 C	Roundtop Cr trib		11	0		1.1 BOX	CPC	CPC	1.22	1.22	30.5	0.67	5			

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990661	SR 7	11.1 C	Roundtop Cr trib		11	67		1.1 RND	PCC		0.61	0.61	16.8	0.18	1.7			
990662	SR 7	11.2 C	Roundtop Cr trib		11	33		1.1 BOX	CPC		0.91	0.91	10.7	0.49	4			
990084	SR 7	11.56 C	Coal Cr		11.0168	67	8.86	1.1 BOX	PCC		1.52	0.91	12.2	0.27	3	1101	484	1394
990669	SR 7	12.74 C	Roundtop Cr trib		11	67		1.1 BOX	PCC		1.52	0.91	12	0	1.24			
990670	SR 7	12.8 C	Roundtop Cr trib		11	33		1.1 RND	PCC		0.76	0.76	10.7	0.3	3			
990671	SR 7	12.9 C	Roundtop Cr trib		11	67		1.1 RND	PCC		0.76	0.76	11.5	0	1.1	50		
990672	SR 7	14.72 C	East Cr trib		11	0	12.87	1.1 RND	PCC		0.61	0.61	15.4	0	-3.2	1891	733	10867
997602	SR 7	14.81 C	East Cr trib		11	67		1.1 RND	PCC		0.46	0.46	13.8	0	0.94			
990674	SR 7	15.92 C	East Cr trib		11	67		1.1 BOX	CPC		1.22	1.22	17.9	0	1.9			
997382	SR 14	4.8 C	Columbia R trib		28	67		1.1 RND	PCC		1.22	1.22	54.6	0	0.37			
997383	SR 14	4.96 C	Columbia R trib		28	33		1.1 RND	PCC		0.46	0.46	56.1	0.26	1.26	72		
997384	SR 14	5.23 C	Columbia R trib		28	33		1.1 RND	PCC		0.61	0.61	52	0	1.3	200		
995859	SR 14	5.27 C	unnamed trib		28	33		1.1 RND	PCC		0.46	0.46	52	0.12	2.8	142		
995864	SR 14	5.45 C	unnamed trib		28	0		1.1 RND	PCC		0.61	0.61	128.8	0.02	3.5			
999074	SR 14	9.13 C	Fisher Cr		28.0148	0	14.71	1.1 BOX	CPC		1.22	1.22	72.7	0.8	8	1881	270	4793
999076	SR 14	10.66 C	Columbia R trib		28.0151	0		1.1 BOX	CPC		1.22	1.85	87.5	2.2	11.4	42		
999023	SR 14	16.62 C	unnamed Columbia R trib trib		28	0		1.1 RND	CST		0.91	0.91	102.1	1	0.34			
999036	SR 14	28.19 C	Columbia R trib		28	0		1.1 BOX	CPC		1.08	0.94	23.4	0.14	8.1	173		
999038	SR 14	28.45 C	unnamed trib		28	0		1.1 BOX	CPC		0.94	0.94	16.9	0	19.5	130		
999079	SR 14	29.79 C	Columbia R trib		28	0		1.1 BOX	CPC		0.91	0.91	24.4	0	6.96	435		
999089	SR 14	31.85 C	Indian Mary Cr trib		28	33	9.81	1.1 BOX	CPC		0.95	0.91	22.5	0.22	1.51	262	38	1182
999090	SR 14	32.23 C	Indian Mary Cr		28	0	12.08	1.1 BOX	CPC		0.95	0.91	38.8	0	3.71	890	440	2366
999092	SR 14	33.49 D	Columbia R trib		28	0	13.12	1.1 BOX	CPC		1.23	1.85	20.7	0	10.7	48	380	3090
999048	SR 14	34.5 C	Little Cr		28.0300	33		1.1 RND	PCC		0.61	0.61						
999095	SR 14	35.19 C	Hardy Cr trib		28	0		1.1 RND	PCC		0.61	0.61						
990177	SR 14	36.05 C	Hardy Cr		28.0303A	0	8.95	1.1 BOX	CPC		3.05	3.1	24	0.76	5	1331	2824	4366
999221	SR 14	44.62 C	Kanaka Cr		29.0018	0	16.97	1.1 BOX	CPC		2.44	3.05	32.5	0	8.03	7994	2365	8788
990967	SR 14	46.6 C	Souther Cr		29.0021	0		1.1 BOX	CPC		1.83	1.9	97	45	5.6			
990067	SR 14	47.88 C	Carson Cr		29.0022	0	7.93	1.1 BOX	CPC		1.83	2.45	32.2	0	4.28	270	51	571
999239	SR 14	49.8 C	Wind R trib		29	67		1.1 RND	PCC		0.61	0.61	28.8	0.21	1.28			
999230	SR 14	50.03 C	Columbia R trib		29	33	9.29	1.1 BOX	CPC		0.95	0.92	27.2	0.35	4.3	2137	459	1089
990968	SR 14	51.98 C	Columbia R trib		29	0		1.1 BOX	CPC		1.28	1.28	37.9	0.25	17.92	7		
991549	SR 14	52.84 C	Collins Cr		29.0128	67	12.67	1.1 RND	SPS		2.29	2.29	36.6	0	3.13	1851	2577	3268
990119	SR 14	55.8 C	Dog Cr		29.0130	67		1.1 BOX	CPC		2.13	2.13				121		
990341	SR 14	140.8 C	Pine Cr		31.0354	0	34.25	1.4 RND	SPS		3.05	3.05	73	0.45	1.5	125566	26895	490830
990341	SR 14	140.8 C	Pine Cr		31.0354	0	34.25	2.4 RND	SPS		3.05	3.05	73	0.45	1.5	125566	26895	490830
990341	SR 14	140.8 C	Pine Cr		31.0354	0	34.25	3.4 RND	SPS		3.05	3.05	73	0.45	1.5	125566	26895	490830
990341	SR 14	140.8 C	Pine Cr		31.0354	0	34.25	4.4 RND	SPS		3.05	3.05	73	0.45	1.5	125566	26895	490830
992806	SR 100	1.74 C	Pacific Ocean trib		24.0754	0		1.1 BOX	CPC		0.92	0.99	45	0	2.3			
992807	SR 100	1.82 C	Pacific Ocean trib		24.0753	67		1.1 RND	PCC		0.91	0.91	34	0	1			
940093	SR 100	3.21 C	Columbia R trib		24	0		1.1 RND	PCC		0.46	0.46	30.7	0.11	4.27			
991360	SR 103	13.27 C	Espy Sl		24.0743	0	15.77	1.1 RND	CST		1.55	1.49	14.2	0.35	-0.52	1850	544	6801
991328	SR 103	19.84 C	Stackpole Sl		24.0749	67	9.54	1.1 RND	CST		0.91	0.91	18	0	1.8	5935	0	28384
991335	SR 105	2.8 C	Willapa Bay trib		24	0		1.1 RND	PCC		0.45	0.45	18.4	0	3.8			
991366	SR 105	6.23 C	Willapa Bay trib		24.0250	0	10.66	1.1 RND	PCC		1.52	1.52	32.5	0	2.15	1460	254	1412

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
992440	SR 105	7.28 C	Willapa Bay trib	24	0			1.1 RND	CST	CST	0.75	0.75	36	0	3.05	42		
993133	SR 105	20.12 C	Willapa Bay trib	24.0002A	33	8.85		1.1 RND	CST	CST	0.91	0.91	35.5	0.32	0.17			
991280	SR 105	21.22 C	Drainage Ditch #1	24.0001	33	23.54		1.3 RND	CST	CST	1.48	1.48	43.5	0	0.07	7453	82	19546
991280	SR 105	21.22 C	Drainage Ditch #1	24.0001	33	23.54		2.3 RND	CST	CST	1.44	1.44	46.7	0	0.24	7453	82	19546
991280	SR 105	21.22 C	Drainage Ditch #1	24.0001	33	23.54		3.3 RND	CST	CST	1.52	1.52	49.9	0	0.24	7453	82	19546
991281	SR 105	23.87 C	Drainage Ditch #1	24.0001	67	16.34		1.2 SQSH	CST	CST	2.4	1.09	13.9	0	0.07	3784	82	10587
991281	SR 105	23.87 C	Drainage Ditch #1	24.0001	67	16.34		2.2 SQSH	CST	CST	2.35	1.05	14.4	0	0	3784	82	10587
931450	SR 105	24.26 C	Seastrand Cr trib	24	67			1.1 RND	PVC	PVC	0.76	0.76	17.6	0	0.57			
993139	SR 105	24.42 C	Seastrand Cr trib	24	67			1.1 RND	OTH	OTH	0.6	0.6	15.4	0	1.1			
993140	SR 105	24.88 C	Drainage Ditch #1 trib	24	67			1.1 RND	PVC	PVC	0.6	0.6		0				
991282	SR 105	25.21 C	Drainage Ditch #1 trib	24	33			1.1 RND	CST	CST	0.75	0.75	21.9	0	0.04			
992235	SR 122	5.84 C	Mayfield Lk trib	26	0	10.88		1.1 BOX	CPC	CPC	2.13	2.16	45.9	2.2	4.5	216	348	584
991017	SR 123	2.28 C	Ohanapecosh R trib	26	0			1.2 RND	PCC	PCC	0.9	0.9	33.2	0.16	6.4	20		
991017	SR 123	2.28 C	Ohanapecosh R trib	26	0			2.2 RND	PCC	PCC	0.9	0.9	31.9	0.27	6.4	20		
991022	SR 123	3.36 C	Ohanapecosh R trib	26	33	2.55		1.2 RND	PCC	PCC	0.75	0.75	27.4	0.25	2.4	686	403	792
991022	SR 123	3.36 C	Ohanapecosh R trib	26	33	2.55		2.2 RND	PCC	PCC	0.75	0.75	25	0.23	3.5	686	403	792
991029	SR 123	6.06 C	Ohanapecosh R trib	26	33			1.1 RND	PCC	PCC	0.9	0.9				60		
991030	SR 123	6.35 C	Ohanapecosh R trib	26	33	1.41		1.2 RND	PCC	PCC	0.9	0.9	15.9	0	6.2	231	47	77
991030	SR 123	6.35 C	Ohanapecosh R trib	26	33	1.41		2.2 RND	PCC	PCC	0.9	0.9	16.3	0	5.4	231	47	77
999202	SR 141	0.74 C	Jewett Cr	29.0342	0			1.1 BOX	CPC	CPC	1.85	2.45	24.4	0.59	4.2	58		
1510068	SR 141	8.31 C	White Salmon R trib	29	Unknown			1.1 RND	CST	CST	0.45	0.45	20.9	0.35				
990483	SR 141	14.64 C	Wieberg Cr	29.0202	0			1.1 BOX	PCC	PCC	1.83	1.86	29.9	0.76	2.4	14		
990339	SR 141	15 C	Phelps Cr	29.0203	0			1.1 BOX	PCC	PCC	1.82	1.85	26.9	1.95	3.07	133		
999207	SR 141	18.67 C	White Salmon R trib	29.0206	67			1.1 BOX	CPC	CPC	1.21	0.96	17.8		0	1.5		
992848	SR 142	1.53 C	Klickitat R trib	30	0			1.1 RND	CST	CST	1.22	1.22	34.4	1.7	13.25	20		
992888	SR 142	8.66 C	Klickitat R trib	30	0			1.1 RND	CST	CST	1.07	1.07	19	1.35	9.8	120		
992908	SR 142	14.66 C	Skookum Canyon Cr	30.0024	33	4.51		1.1 RND	SPS	SPS	1.83	1.83	11.5	0	1.24	540		
993802	SR 142	22.38 C	Little Klickitat R trib	30	67			1.2 RND	CST	CST	0.91	0.91	13.1	0	0.1			
993802	SR 142	22.38 C	Little Klickitat R trib	30	67			2.2 RND	CST	CST	0.91	0.91	15.7	0	1.1			
993804	SR 142	23.19 C	Little Klickitat R trib	30	67			1.1 RND	CST	CST	0.91	0.91	9.1	0	1.7			
991629	SR 142	25.1 C	Smith-Mason Cr	30.0090	33	5.03		1.2 RND	CST	CST	1.52	1.52	22.9	0	1.5	13632	2347	11893
991629	SR 142	25.1 C	Smith-Mason Cr	30.0090	33	5.03		2.2 RND	CAL	CAL	1.22	1.22	18.3	1.3	5.4	13632	2347	11893
990284	SR 142	25.32 C	Mill Cr	30.0088	67	6.19		1.1 RND	CST	CST	2.02	2.02	14.6	0	1.5	25149	29484	55510
992781	SR 401	0.76 C	Columbia R trib	24	67	6.95		1.1 RND	PCC	PCC	0.91	0.91	16.5	0.46	0.73	1192	52	281
991411	SR 401	1.85 C	Columbia R trib	24.0050	67	11.37		1.1 ELL	CST	CST	1.42	1.6	27.8	0	0.8	3146	2298	3249
991418	SR 401	4.33 C	Columbia R trib	24	0	5.65		1.1 RND	PCC	PCC	1.22	1.22	32.9	0.15	5	1163	109	391
994566	SR 401	5.5 C	SF Naselle R trib	24	0	11.5		1.1 RND	PCC	PCC	0.61	0.61	11	0.32		911	98	721
994567	SR 401	5.52 C	SF Naselle R	24.0584	33	15.75		1.1			0.63	0.63	37.3	0.3	1.4	1342	12	1511
994565	SR 401	5.56 C	SF Naselle R trib	24	0	12.15		1.1 RND	PCC	PCC	0.61	0.61	15		4.76	732	248	414
991377	SR 401	5.56 C	SF Naselle R	24.0584A	33	17.32		1.2 RND	PCC	PCC	0.61	0.61	28	0	1.4	2077	385	1303
991377	SR 401	5.56 C	SF Naselle R	24.0584A	33	17.32		2.2 RND	PCC	PCC	0.61	0.61	36	0.15	1.4	2077	385	1303
991378	SR 401	5.83 C	SF Naselle R trib	24.0584B	0	7.66		1.1 RND	PCC	PCC	0.91	0.91	28.7	1.3	5.13	666	66	282
992791	SR 401	6.04 C	SF Naselle R trib	24	33	5.3		1.1 RND	PCC	PCC	0.91	0.91	21.5	0.65	1.02	597	50	452
992792	SR 401	6.16 C	SF Naselle R trib	24	0	6.92		1.1 RND	PCC	PCC	0.76	0.76	26.7	0.3	3.46	200	2	99
992795	SR 401	7.01 C	SF Naselle R trib	24	33			1.1 RND	PCC	PCC	0.91	0.91	35		1.7			

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
992392	SR 401	9.22 C	SF Naselle R trib		24	0	6.83	1.1 RND	PCC	PCC	0.91	0.91	34.7	0.13	2.7	204	0	60
991351	SR 401	10.48 C	SF Naselle R trib		24	33		1.1 RND	PCC	PCC	0.91	0.91	29	0.52	-0.17			
992262	SR 411	7.14 C	Cowlitz R trib		26	0	10.52	1.1 RND	OTH	OTH	0.85	0.85	40.5	0	1.67	621	102	191
992265	SR 411	9.56 C	Cowlitz R trib		26	67	11.38	1.1 RND	PCC	PCC	0.6	0.6	39.7	0	0.55	1516	436	1454
991783	SR 500	11.7 C	Lacamas Cr trib		28.0165	33		1.1 RND	PCC	PCC	0.91	0.91	16.5	0	4.2			
999062	SR 500	16.5 C	unnamed Lacamas Cr trib trib		28	0		1.1 RND	CST	CST	0.99	0.99	24.1	0	2.8			
994514	SR 501	17.94 C	Gee Cr trib		27.0168D	0	16.27	1.1 RND	PCC	PCC	0.76	0.76	47.7	1.4	2.56	1730	1247	7553
991877	SR 502	0.77 C	Gee Cr trib		27.0168A	67	7.01	1.1 RND	PCC	PCC	0.91	0.91	18.6	0	1.4	358	0	792
27.0305 1.00	SR 503	0.05 C, FI	Ross Cr		27.0305	33	13.28	1.1 BOX	CPC	CPC	1.83	1.52	21.4			670	997	1798
991657	SR 503	13.21 C	Rock Cr trib		27.0223	33	18.88	1.1 SQSH	CST	CST	2.11	1.55	32.9	0.3	1	3325	1138	3706
991656	SR 503	15.84 C	Rock Cr		27.0222	33	23.09	1.2 BOX	PCC	PCC	2.15	2.15		0		13644	776	32937
991656	SR 503	15.84 C	Rock Cr		27.0222	33	23.09	2.2 RND	CST	CST	1.22	1.22	42.8	0	0	13644	776	32937
1350514	SR 503	18.87 C	Bitter Cr trib		27	33		1.1 RND	CST	CST	0.53	0.53	12.1	0	1.97			
991503	SR 503	19.55 C	Bitter Cr trib		27.0372	0	12.18	1.1 RND	CST	CST	0.61	0.61	18.6	0.58	8	543	570	682
990037	SR 503	19.85 C	Bitter Cr		27.0367	67	12.5	1.1 SQSH	CST	CST	1.25	0.85	12.1	0	1.9	3045	2447	4102
990073	SR 503	25.36 C	Chelatchie Cr		27.0373	67	16.8	1.1 RND	CST	CST	1.22	1.22	14.3	0	0.56	2032	701	4186
990842	SR 503	27.05 C	Lewis R trib		27	0		1.1 RND	CST	CST	0.64	0.64	25	0	2	0		
994531	SR 503	33.04 C	Brooks Cr		27.0431	33	15.28	1.1 BOX	CPC	CPC	1.52	1.86	33.9	0	4.95	2072	3178	4603
994532	SR 503	33.28 C, FI	Brooks Cr trib		27.0432	33	4.18	1.1 BOX	CPC	CPC	2.45	2.43	34.9		5	603	687	1365
994533	SR 503	33.5 C	Brooks Cr trib		27.0433	0	3.44	1.1 RND	PCC	PCC	0.91	0.91	31.5	0.9	6.57	285	163	417
991789	SR 503	33.54 C	Lewis R trib		27	0		1.1 RND	PCC	PCC	1.22	1.22	50.3	0.3	20	11		
991790	SR 503	34.09 C	Yale Lk trib		27	0	4.2	1.1 RND	PCC	PCC	1.22	1.22	30.5	1.83	12	1154	1297	925
994610	SR 503	34.97 C	Lake Merwin trib		27.0428	0		1.1 RND	PCC	PCC	0.61	0.61	57.2	0	6.9	0		
991791	SR 503	35.2 C	Yale Lk trib		27	0	3.91	1.1 RND	PCC	PCC	1.22	1.22	32	1.83	3	1472	1077	913
994603	SR 503	35.58 C	Yale Lk trib		27	0	4.41	1.1 RND	PCC	PCC	0.76	0.76	40.2	0	6.03	1383	1310	1129
991571	SR 503	35.69 C	Dog Cr trib		27	0	2.87	1.1 RND	PCC	PCC	0.76	0.76	50.7	1.4	11.6	565	631	877
990120	SR 503	35.84 C	Dog Cr		27.0476	0	4.9	1.1 BOX	OTH	OTH	2.44	2.44	6.7	0.4	2.5	1090	1445	1768
994541	SR 503	36.57 C	Rock Cr trib		27.0420	0		1.1 RND	PCC	PCC	0.91	0.91	47.5	0.41	12	200		
994599	SR 503	37.06 C	Panamaker Cr		27.0478	67	18.85	1.2 BOX	CPC	CPC	3.05	2.45	21.4	0	-0.89	3322	23132	29138
994599	SR 503	37.06 C	Panamaker Cr		27.0478	67	18.85	2.2 BOX	CPC	CPC	3.05	2.45	20	0	-0.45	3322	23132	29138
990322	SR 503	37.79 C	Lewis R trib		27.0417	0		1.1 RND	PCC	PCC	0.91	0.91	37	3.5	16.4	0		
994545	SR 503	38.17 C	Lewis R trib		27.0416	0	3.48	1.1 RND	PCC	PCC	0.46	0.46	16.9	0.29	6	381	178	434
994546	SR 503	38.65 C	Lewis R trib		27.0415	0	4.84	1.1 BOX	CPC	CPC	0.91	1.57	27.1	0.76	6	600	1803	1625
990078	SR 503	38.77 C	Dry Cr		27.0481	0		1.1 BOX	PCC	PCC	2.44	3.05	27.7	0	3	103		
994547	SR 503	38.85 C	Indian Cr		27.0411	0		1.1 BOX	CPC	CPC	1.85	1.85	31.9	0.1	4	0		
994549	SR 503	39.41 C	Jim Cr trib		27	33	3.55	1.1 RND	PCC	PCC	0.61	0.61	32.6	0	7.55	410	491	702
994550	SR 503	39.9 C	Day Cr		27.0409	0	5	1.1 RND	PCC	PCC	0.75	0.75	23.6	0.2	9	1328	1241	1862
990062	SR 503	40.94 C	Cape Horn Cr		27.0401	0	2.43	1.1 BOX	CPC	CPC	2.3	2.9	65.9	0.65	3.34	161	76	300
994558	SR 503	41.1 C	Lake Merwin trib		27.0400	0	6.34	1.1 RND	PCC	PCC	0.91	0.91	22.4	0.26	8.57	676	272	4805
994557	SR 503	42.11 C	Lake Merwin trib		27.0398	0	3.15	1.1 RND	PCC	PCC	0.76	0.76	35.1	0.72	12.8	214	101	294
994582	SR 503	44.34 C	Husky Cr		27.0359	0		1.1 RND	PCC	PCC	1.22	1.22		15				
994583	SR 503	45.3 C	Lewis R trib		27	0		1.1 RND	PCC	PCC	0.76	0.76		0.3				
990089	SR 503	46.17 C	Colvin Cr		27.0392	0	16.71	1.1 RND	SPS	SPS	1.83	1.83	76.2	0.4	3.5	997	1021	1412
991439	SR 503	46.55 C	Davis Cr		27.0338	0	3.53	1.1 RND	PCC	PCC	1.37	1.37	51.8	0.17	5	769	1254	1925
994623	SR 503	48.19 C	Houghton Cr trib		27	33		1.1 RND	CST	CST	0.61	0.61	42	0	4	101		

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
994624	SR 503	48.42 C		Houghton Cr trib	27	0		1.1 RND	OTH		0.81	0.81	29.7	0	0.49			
994625	SR 503	49.49 C		Staples Cr	27.0315	0	9.49	1.1 RND	PCC		1.37	1.37	38	1.1	2.6	696	191	605
994629	SR 503	50.01 C		Lewis R trib	27.0310	0	11.86	1.1 RND	CST		0.61	0.61	46.2	1.5		1060	518	1190
991968	SR 504	2.49 C		Salmon Cr trib	26	0	4.07	1.1 RND	CAL		0.8	0.8	42.2	0	5	211	20	40
991970	SR 504	2.73 C		Salmon Cr trib	26	0	7.69	1.1 RND	CAL		0.6	0.6	23.7	0	3.6	370	24	104
992015	SR 504	2.76 C		Salmon Cr trib	26	0	6.23	1.1 RND	CAL		0.6	0.6	24.6	0.1	9.3	205	20	90
991669	SR 504	3.17 C		Salmon Cr trib	26	33	12.22	1.1 RND	CAL		0.8	0.8	33.5	0	2.3	775	685	1206
992019	SR 504	4.55 C		Silver Lk trib	26	0	2.92	1.2 RND	CST		0.75	0.75	27.6	0.73	2.6	60	0	900
992019	SR 504	4.55 C		Silver Lk trib	26	0	2.92	2.2 RND	CST		0.75	0.75	27.6		2.6	60	0	900
992022	SR 504	8.2 C		Silver Lk	26	67		1.1 RND	CST		0.91	0.91	18.1	0	1.38			
992024	SR 504	8.56 C		Silver Lk	26	0		1.1 RND	CST		0.91	0.91	15.8	0				
992025	SR 504	8.97 C		Silver Lk	26	0		1.1 RND	CST		0.91	0.91	15.9	0	-4.9			
991675	SR 504	13.55 C		Spirit Marsh to Toutle R trib	26.0314B	0		1.2 RND	CST		0.76	0.76	25.6	0.1	4.49			
991675	SR 504	13.55 C		Spirit Marsh to Toutle R trib	26.0314B	0		2.2 RND	CST		0.76	0.76	25.6	0.15	5.19			
992028	SR 504	17.6 C		NF Toutle R trib	26	0	9.29	1.1 RND	PCC		1.22	1.22	55	0	1.9	1431	478	1134
992068	SR 504	22.21 C		NF Toutle R trib	26	0		1.1 RND	CST		0.75	0.75	98.1		5.2			
992074	SR 504	23.58 C		NF Toutle R trib	26	0	6.35	1.1 RND	CST		1.6	1.6	68.6	0	10	498	64	400
992244	SR 505	0.16 C		Olequa Cr trib	26	0	10.21	1.1 BOX	CPC		0.95	1.54	288	2.5		414	317	983
992246	SR 505	0.26 C		Olequa Cr trib	26	0	9.72	1.1 RND	CST		0.9	0.9	29.5	0	5.5	1253	235	506
991047	SR 505	19.2 C		NF Toutle R trib	26	67	10.59	1.1 RND	CST		0.45	0.45	19.9	0	0.4	1512	329	1130
991685	SR 506	2.77 C		Stillwater Cr trib	26.0429A	0	8.16	1.2 RND	PCC		1.07	1.07	31.5	0.3	2.98	462	55	161
991685	SR 506	2.77 C		Stillwater Cr trib	26.0429A	0	8.16	2.2 RND	PCC		1.07	1.07	29.6	0.19	3.51	462	55	161
992287	SR 506	2.98 C		Stillwater Cr trib	26	0		1.1 RND	PCC		0.75	0.75	22.5	0	2.75			
992290	SR 506	5.41 C		Stillwater Cr trib	26	67		1.1 RND	PCC		1.22	1.22	31		0.51			
991432	SR 506	7.68 C		Cowlitz R trib	26	0	11.26	1.1 RND	OTH		0.78	0.78	33.4	0.16	8.26	570	137	434
994954	SR 508	0.53 C		Allen Cr	23.0883	33		1.1 RND	PCC		0.91	0.91	25	0	1.6			
994955	SR 508	0.64 C		Allen Cr trib	23	33		1.1 RND	PCC		0.61	0.61	22.9	0	0.7			
994958	SR 508	1.7 C		unnamed Allen Cr trib trib	23	33	10.16	1.1 RND	PCC		0.76	0.76	16.4	0.16	2.74	1121	285	613
994959	SR 508	1.85 C		unnamed Allen Cr trib trib	23	33	14.75	1.1 RND	PCC		0.91	0.91	25	0.26	1.9	860	370	2523
992277	SR 508	4.26 C		SF Newaukum R trib	23	33	10.59	1.1 RND	PCC		0.91	0.91	12.4	0.21	1.28	984	0	2016
994966	SR 508	4.7 C		SF Newaukum R trib	23	0	9.28	1.1 RND	OTH		0.46	0.46	18.5	0	2.6	964	9	398
991756	SR 508	5.1 C		SF Newaukum R trib	23	67	5.94	1.1 RND	CST		1.22	1.22	18.8	0	0.58	625	0	457
991292	SR 508	5.53 C		SF Newaukum R trib	23	67	8.49	1.1 RND	PCC		0.46	0.46	11.5	0	0.35	1632	1945	1783
991293	SR 508	6.78 C		SF Newaukum R trib	23	67	18.16	1.1 RND	PCC		0.91	0.91	12.5	0	0.64	3788	463	17938
994969	SR 508	8.88 C		SF Newaukum R trib	23	33	6.96	1.2 RND	PCC		0.61	0.61	14.5	0	0.5	652	2	377
994969	SR 508	8.88 C		SF Newaukum R trib	23	33	6.96	2.2 RND	PCC		0.61	0.61	15.2	0	0.3	652	2	377
994971	SR 508	11.27 C		SF Newaukum R trib	23.0000	33	5.54	1.1 RND	CST		0.61	0.61	16.3	0	0.2	210	39	76
991288	SR 508	11.55 C		SF Newaukum R trib	23	33	16.53	1.1 RND	PCC		1.22	1.22	15.1	0.1	3.7	4076	181	6003
991289	SR 508	12.66 C		SF Newaukum R trib	23	33	9.05	1.1 RND	PCC		0.91	0.91	20	0	1.5	756	306	1078
994976	SR 508	15.42 C		unnamed Kearney Cr trib trib	23	0		1.1 RND	PCC		0.61	0.61	15.5	0	4.5			
991296	SR 508	15.85 C		Kearney Cr trib	23	0	10.11	1.1 RND	PCC		0.91	0.91	15.5	0.12	4	1244	168	1279
994979	SR 508	16.5 C		unnamed Stowell Cr trib trib	23	67	8.71	1.1 RND	PCC		0.76	0.76	14	0	1.9	2287	15	789
994981	SR 508	16.99 C		Stowell Cr trib	23	67	12.68	1.1 RND	PCC		0.61	0.61	12.9	0.03	1.39	997	0	4228
991291	SR 508	17.06 C		Stowell Cr trib	23	67	18.37	1.1 RND	PCC		1.22	1.22	15.3	0	1.76	2352	61	18593
994463	SR 508	17.55 C		Stowell Cr	23.0916	33		1.1 RND	PCC		0.91	0.91	15.1	0	2.8			

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
992540	SR 508	18.32	C	Mill Cr trib	26	33	9.78	1.1	RND	PCC	0.73	0.73	13.1	0.15	3.5	1545	766	1008
992541	SR 508	18.95	C	Tilton R trib	26.0560x	67	1.67	1.1	RND	CPC	0.6	0.6	16.5	0	0.05	937	192	294
991433	SR 508	20.37	C	Shermans Cr	26.0564	0	3.24	1.1	RND	PCC	0.91	0.91	14.6	1.25	4.5	1827	477	1365
992550	SR 508	22.5	C	Tilton R trib	26.0566	0		1.1	RND	CST	1.8	1.8	55.9	0.44	15	38		
992551	SR 508	23	C	unnamed trib	26.0567x	0		1.1	RND	PCC	0.9	0.9	10.2	1.4	0.12	24		
992552	SR 508	23.16	C	Tilton R trib	26.0560x	0		1.1	RND	PCC	0.6	0.6	20.4	0.95	0.12	35		
992553	SR 508	23.45	C	Tilton R trib	26.0560x	0		1.1	RND	PCC	0.62	0.62	19.7	0.85	0.14	80		
992555	SR 508	23.89	C	Tilton R trib	26.0560x	33	4.7	1.1	BOX	CPC	1.68	1.82	24.6	0.55	7.11	1552	1049	2644
992557	SR 508	23.99	C	Tilton R trib	26.0560x	0		1.1	RND	PCC	0.9	0.9	15.1	0	0.04	80		
992573	SR 508	30.01	C	Tilton R trib	26	0		1.1	SQSH	CST	2.1	1.65	13.6	0.9	1.2	86		
991435	SR 508	31.8	C	Tilton R trib	26	0	10.6	1.1	RND	PCC	1.07	1.07	19.5	0.98	2	1427	433	1378
991426	US 12	72.45	C	Lacamas Cr trib	26.0474	33	10.12	1.1	BOX	PCC	0.92	0.92	22	0	2	2870	314	1867
992079	US 12	74.92	C	Cowlitz R trib	26	67		1.2	RND	PCC	1.05	1.05	22.1	0	0.92			
992079	US 12	74.92	C	Cowlitz R trib	26	67		2.2	RND	PCC	0.6	0.6	22.2	0	0.91			
990041	US 12	76	C	Blue Cr	26.0527	67	9.35	1.2	RND	PCC	0.91	0.91	27.6	0	0.61	3249	0	1500
990041	US 12	76	C	Blue Cr	26.0527	67	9.35	2.2	RND	PCC	0.91	0.91	28.1	0	0.5	3249	0	1500
992084	US 12	90.71	C	Riffe Lk trib	26	0		1.1	SQSH	SPS	1.65	1.05			10	5		
992085	US 12	91.25	C	Riffe Lk trib	26	0	2.01	1.1	SQSH	SPS	1.9	1.45	31.3	0.2	5.3	200	126	212
992087	US 12	92.09	C	Riffe Lk trib	26	0		1.1	ELL	SPS	1.35	1.7		0.34	0.17	5		
992092	US 12	93.8	C	Riffe Lk trib	26	0	1.89	1.1	RND	CST	1.28	1.28	59	0.48	1.8	498	225	165
992096	US 12	94.15	C	Highland Cr	26.0590	0	7.26	1.1	ELL	SPS	1.68	2	65.6	1.42		332	232	688
990190	US 12	95.75	C	Highland Cr	26.0590	67	16.12	1.2	ELL	SPS	2.38	2.58	28.9	0.35	0.4	5980	6417	12122
990190	US 12	95.75	C	Highland Cr	26.0590	67	16.12	2.2	ELL	SPS	2.38	2.58	27.2	0.3	0.4	5980	6417	12122
992099	US 12	95.98	C	Highland Cr trib	26	67	7.85	1.1	ELL	CST	1.12	1.32	37.3	0.18	1.9	2922	368	1038
992102	US 12	97.94	C	Lake Cr trib	26	67		1.1	BOX	CPC	2.32	2.45	27.8	0	0			
993141	US 12	101.9	C	Riffe Lk trib	26	0		1.1	RND	PCC	0.46	0.46	38.5	0	4.65	20		
992111	US 12	102.55	C, FI	Sand Cr	26.0646	33	3.25	1.1	ELL	SPS	1.68	1.84	92.6	0.4	5.1	2450	926	4150
992113	US 12	103.43	C	Riffe Lk trib	26	0	3.01	1.1	RND	CST	0.9	0.9	93.3	0	3	1057	337	1015
990944	US 12	103.98	C	Steffen Cr	26.0652	67	8.63	1.1	SQSH	SPS	3.52	2.39	24.5	0	3	3102	1424	2248
990401	US 12	109.27	C	Stillner Cr	26.0654	33	3.09	1.1	BOX	CPC	1.83	0.95	18.7	0.5	1	2066	985	1701
992150	US 12	112.08	C	Kiona Cr trib	26	0	1.61	1.1	RND	PCC	1.05	1.05	44.1	0	5	656	55	87
992151	US 12	112.95	C	Oliver Cr	26.1025	67	2.85	1.1	ARCH	CPC	5.89	3.02	31.2	0	0	916	904	2583
990338	US 12	113.73	C	Peters Cr	26.1023	0		1.1	BOX	CPC	3.05	2.44	45.1	0.91	4	30		
931098	US 12	115.29	C	Cowlitz R trib	26	Unknown		1.1	RND	CST	0.61	0.61	51	0				
992229	US 12	115.76	C	Hampton Cr	26	67		1.1	RND	CST	0.6	0.6	24	0	1.1			
990945	US 12	118.41	C	Sethe Cr	26.1075	67		1.2	RND	CST	1.91	1.91	37.7	0	0.16			
990945	US 12	118.41	C	Sethe Cr	26.1075	67		2.2	RND	CST	0.75	0.75	39	0	0.28			
992282	US 12	125	C	Burton Cr	26.1106	0	5.73	1.1	SQSH	SPS	2.95	2	27.6	0.85	1.52	240		
991880	US 12	137.73	C	Cowlitz R trib	26	0		1.1	RND	CST	0.9	0.9	38.5	0.2	4.7	89		
990845	US 97	12.9	C	Little Klickitat R trib	30	33		1.1	RND	SPS	2.74	2.74	69	0.48	1.25			
990846	US 97	13.39	C	Little Klickitat R trib	30	67		1.1	BOX	PCC	1.83	1.83	34.1		1.96	35		
990848	US 97	18.4	C	Jenkins Cr	30.0128	0	6.2	1.1	BOX	CPC	2.45	1.83	35.2	0.36	2.36	5752	667	6101
990850	US 97	21.16	C	W Prong L Klickitat R	30.0067	33	10.97	1.1	BOX	CPC	3.05	3.05	54.5	0.06	1.29	12585	12862	34133
990851	US 97	23.99	C	Dry Cr	30.0147	33		1.1	BOX	CPC	3.07	1.83	25.6	0	3.45			
990853	US 97	25.41	C	E Prong L Klickitat R	30.0139	0	9.48	1.1	BOX	CPC	1.85	1.23	28.4	0.5	4.95	8100	4170	7207

Appendix ID. WSDOT Southwest Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990854	US 97	25.59	C	Idlewild Canyon Cr	30.0152	33	6.7	1.1	BOX	CPC	1.23	0.94	20.5	0	5.72	5543	2823	5370
991955	US 97	27.97	C	SF Shinando Cr	37.1104	0	5.47	1.1	ELL	SPS	1.52	1.83	108.8	1.93	4	516	325	664
990857	US 97	30.1	C	Shinando Cr	37.1103	0	11.76	1.1	BOX	CPC	1.52	1.83	76.2	0.4	3.5	13354	12602	14910
991388	US 101	1	C	Columbia R trib	24.0047	0	15.23	1.1	RND	PCC	0.91	0.91	22.1	0.3	1.8	2384	1554	2965
991359	US 101	1.3	C	Columbia R trib	24.0045	0	13	1.1	RND	PCC	0.61	0.61	27.1	0.61	1.22	934	682	1317
992817	US 101	1.62	C	Columbia R trib	24.0044	0	4.86	1.1	RND	PCC	0.91	0.91				220	0	17
991358	US 101	2	C	Station Camp Cr	24.0042	0	15.33	1.1	RND	PCC	0.61	0.61	16.6	0.61	1.82	1370	24	1756
992818	US 101	2.29	C	Columbia R trib	24.0042	0	12.32	1.1	RND	PCC	0.91	0.91	19.5	0.12	0.12	1020	312	1034
991390	US 101	2.58	C	Columbia R trib	24.0041	0	17.99	1.1	RND	PCC	0.61	0.61	16.9	0.1	-0.5	352	0	4487
992820	US 101	3.15	C	Columbia R trib	24	33		1.1	RND	PCC	0.61	0.61	18.3	0.2	2.5			
992823	US 101	7.11	C	Chinook R	24.0007A	33		1.3	BOX	CPC	2.4	2.55	25	0	0.17			
992823	US 101	7.11	C	Chinook R	24.0007A	33		2.3	BOX	CPC	2.4	2.55	25	0	0.17			
992823	US 101	7.11	C	Chinook R	24.0007A	33		3.3	BOX	CPC	2.4	2.55	25	0	0.17			
991308	US 101	21.27	C	Willapa Bay trib	24.0679	67	18.82	1.2	RND	PCC	0.91	0.91	19.4	0	2.4	3666	4507	4561
991308	US 101	21.27	C	Willapa Bay trib	24.0679	67	18.82	2.2	RND	PCC	0.91	0.91	19.2	0	1.5	3666	4507	4561
991386	US 101	21.36	C	Willapa Bay trib	24.0680	33	10.28	1.1	RND	PCC	0.91	0.91	23		2.08	207	326	376
992836	US 101	22.12	C	Willapa Bay trib	24	33		1.1	RND	PCC	0.61	0.61	17		3.3	133		
992837	US 101	23.15	C	Willapa Bay trib	24	Unknown		1.1	RND	PCC	0.63	0.63	19.8	0.1	1.7			
992841	US 101	25.73	C	Naselle R trib	24	33		1.1	RND	PCC	0.98	0.98	18		3			
991696	US 101	26.03	C	Willapa Bay trib	24	0		1.1	RND	OTH	0.61	0.61	19.9	0	4.8			
992298	US 101	46.12	C	Willapa Bay trib	24	0	7.45	1.1	RND	PCC	0.92	0.92	62	0	3.32	418	0	280
990176	US 101	46.96	C	Hansen Cr	24.0403	33	3.67	1.1	BOX	PCC	1.83	1.83	31.2	0.4	0.67	1006	0	1824
992310	US 101	51.78	C	Willapa R trib	24	33	23.53	1.1	RND	PVC	0.91	0.91	39	0		2713	0	40856
982340	US 101	52.11	C	Willapa R trib	24	0	26.01	1.1	RND	PVC	0.91	0.91	39	0	0.3	2713	0	40856
990063	US 101	61.15	C	Butte Cr	24.0060	67	20.66	1.1	BOX	CPC	3.05	1.83	18.9	0.24	0.47	2800	3236	9946
990054	US 101	61.17	C	Butte Cr trib	24	33	7.25	1.1	RND	PCC	0.91	0.91	24.5	0	1.14	240	71	417
991517	US 101	61.25	C	Butte Cr trib	24	33	10.24	1.1	RND	PCC	0.61	0.61	21.3	0.32	1.07	879	228	544
991320	US 101	64.36	C	Smith Cr trib	24	33	6.23	1.1	BOX	CPC	0.95	0.91	18	0.28	0.01	1104	302	863
991323	US 101	65.71	C	Elkhorn Cr trib	24	67	12.35	1.1	BOX	PCC	0.95	0.91	19.5	0.32	0.37	1875	8	1962
992479	US 101	65.93	C	Elkhorn Cr trib	24	67		1.1	BOX	CPC	0.95	0.91	18.8	0	-0.48			

¹Field Codes**Codes Used for Culvert Shape**

ARCH - bottomless arch
 BOX - rectangular or square
 ELL - ellipse
 OTH - other
 RND - round
 SQSH - squash (pipe arch)

Codes Used for Culvert Materials

CAL - corrugated aluminium
 CMP - corrugated metal pipe
 CPC - cast in place concrete
 CST - corrugated steel
 OTH - other

Feature Type

B - bridge
 C - culvert
 D - dam
 DL - dike/levee
 EC - erosion control
 F - fill/puncheon
 FD - fill/debris
 FI - fishway
 FL - flume

²The culvert # identifies individual culverts at multiple stream crossings. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Appendix IE. WSDOT South Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
991457	I-82	26.26	C	Yakima R trib	39.0002A	33	10.77	1.1	RND	SPS	2.58	2.58	84.3	0.12	1.5	892	96	1714
991073	I-82	68.32	C	Yakima R trib	37	67		1.1	RND	SPS	2.67	2.67	77.8	0	0.8			
990404	I-82	70.12	C	Yakima R trib	37	67		1.1	RND	SPS	4.27	4.27	87.4	0	1.05			
997805	I-82	70.9	C	unnamed Sulphur Cr trib trib	37	0		1.1	RND	CST	1.22	1.22	144.3	0	4.35			
991074	I-82	72.08	C	Yakima R trib	37	33		1.1	RND	CST	1.07	1.07	83.4	0	2.2			
997806	I-82	72.38	C	unnamed trib	37	67		1.1	RND	CST	1.07	1.07	154.8	0	0.6			
997807	I-82	78.47	C	unnamed trib	37	67		1.1	RND	CST	0.83	0.83	117.5	0.19	1.2			
997808	I-82	80.32	C	Yakima R trib	37	67		1.1	RND	CST	1.22	1.22	79.5	0	0.76			
994882	I-90	38.18	C	SF Snoqualmie R trib	07.0000	0	2.07	1.1	RND	CST	1.07	1.07	129	0	6.98	998	121	454
990575	I-90	38.67	C	SF Snoqualmie R trib	07.0492	0	3.44	1.1	RND	SPS	2.13	2.13	180.7	0	3.59	1859	705	1743
990072	I-90	38.87	C	SF Snoqualmie R trib	07.0493	0	2.98	1.1	RND	SPS	1.52	1.52	173.4	0.7	5.42	654	205	982
934857	I-90	38.99	C	SF Snoqualmie R trib	07	0		1.1	RND	CAL	0.46	0.46	125.2	0	3.96			
994884	I-90	40.7	C	SF Snoqualmie R trib	07.0000	0		1.1	RND	CAL	1.07	1.07	95	0.17	4.74			
934799	I-90	41.66	C	SF Snoqualmie R trib	07.0000	0		1.1	RND	CST	0.91	0.91	83.4	0.72	2.39			
990265	I-90	42.17	C	Mason Cr	07.0499	0	2.36	1.1	RND	SPS	1.55	1.55	107.7	0.6	4.1	471	146	388
994927	I-90	42.21	C	Mason Cr	07.0499	0	2.22	1.1	RND	CST	1.9	1.9	41.7	0	5.15	367	113	301
994912	I-90	42.32	C	SF Snoqualmie R trib	07	0	2.3	1.1	RND	CST	1.22	1.22	253.6	0	3.89	340	257	700
994887	I-90	43.12	C	SF Snoqualmie R trib	07	33	1.97	1.1	RND	CST	1.22	1.22	97.3	0	2.13	611	43	561
994891	I-90	43.42	C	SF Snoqualmie R trib	07	0		1.1	RND	PCC	0.76	0.76	61.1	1	4.6			
990865	I-90	43.87	C	SF Snoqualmie R trib	07	67		1.1	RND	CST	1.52	1.52	85.3	0	1	78		
994894	I-90	45	C	SF Snoqualmie R trib	07	0		1.1	RND	PCC	0.91	0.91	72.4	0.26	4	15		
992941	I-90	46.18	C	SF Snoqualmie R trib	07	0	2.01	1.1	RND	CST	1.89	1.89	50.6	0.09	2.5	244	34	404
994914	I-90	46.19	C	SF Snoqualmie R trib	07	0	2.2	1.1	RND	SPS	1.89	1.89	26.1	5	3.8	327	49	579
990424	I-90	46.24	C	Talapus Cr	07.0508	0	3.45	1.2	BOX	PCC	3.06	1.87	35.8	0	8	536	817	1763
990424	I-90	46.24	C	Talapus Cr	07.0508	0	3.45	2.2	BOX	PCC	1.98	3.05	25		5	536	817	1763
994899	I-90	46.3	C	Talapus Cr	07.0508	33	3.12	1.2	BOX	CPC	3.04	1.84	29.3	0	5	262	817	1763
994899	I-90	46.3	C	Talapus Cr	07.0508	33	3.12	2.2	BOX	CPC	3.05	1.84	30.6	0	5	262	817	1763
994919	I-90	47.35	C	SF Snoqualmie R trib	07	0		1.1	RND	CST	1.52	1.52	105.5	1.65	6.3	193		
992931	I-90	48.09	C	Humpback Cr	07.0512	0	5.67	1.2	BOX	CPC	3.38	2.49	61.8	0.54	7.6	3454	9003	12893
992931	I-90	48.09	C	Humpback Cr	07.0512	0	5.67	2.2	BOX	CPC	3.38	2.49	61.8	0.54	7.7	3454	9003	12893
992933	I-90	48.66	C	SF Snoqualmie R trib	07	0		1.2	BOX	CPC	3.15	2.45	31.4	0.24	2.26	125		
992933	I-90	48.66	C	SF Snoqualmie R trib	07	0		2.2	BOX	CPC	3.15	2.45	31.4	0.24	2.26	125		
999281	I-90	51.33	C	Coal Cr	39.1880	33		1.1	RND	CST	1.22	1.22		0	1.1			
994907	I-90	52.12	C	SF Snoqualmie R trib	07	33		1.1	RND	CAL	1.66	1.66	113.9	0.31	3.5	161		
999283	I-90	52.92	C	Coal Cr trib	39	33		1.2	BOX	CPC	3.05	3.35	90.4	0.76	3.7			
999283	I-90	52.92	C	Coal Cr trib	39	33		2.2	BOX	CPC	3.05	3.35	90.4	0.76	3.8			
999276	I-90	53.34	C	unnamed trib	39	0		1.1	RND	PCC	0.91	0.91	64.3	0	5.6			
999279	I-90	54.03	C	Coal Cr trib	39	33		1.1	BOX	CPC	1.58	1.56	50.5	0	3.1			
999280	I-90	54.18	C	Coal Cr	39.1880	33		1.2	BOX	CPC	3.05	1.7	63.2	0.65	3.3			
999280	I-90	54.18	C	Coal Cr	39.1880	33		2.2	BOX	CPC	3.05	1.7	63.4	0.06	3			
992952	I-90	62.22	C	Yakima R trib	39	0		1.1	BOX	OTH	1.82	1.22	60	0	3.9			
992953	I-90	62.29	C	Yakima R trib	39	0		1.1	RND	PCC	1.81	1.81	27.6	0.09	2.57	91		
992954	I-90	62.3	C	Yakima R trib	39	0		1.1	BOX	CPC	1.84	1.84	23.9	0.35	3.39	91		
992955	I-90	62.74	C	Swamp Cr	39.1836	33	17.22	1.2	BOX	CPC	2.45	1.84	67.3	0.13	1.01	1671	274	9624

Appendix IE. WSDOT South Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
992955	I-90	62.74	C	Swamp Cr	39,1836	33	17.22	2.2	BOX	CPC	2.45	1.84	67.3	0.15	1.01	1671	274	9624
993757	I-90	64.12	C	Toll Cr	39	33		1.1	RND	PCC	1.22	1.22	89	0	1.58			
992961	I-90	66.59	C	Hudson Cr	39,1822	0		1.1	BOX	CPC	1.25	1.28	32.5	2.2				
990378	I-90	70.9	C	Silver Cr	39,1713	33	19.29	1.2	BOX	PCC	2.88	1.84	91.5	0.57	1.4	3849	8121	6186
990378	I-90	70.9	C	Silver Cr	39,1713	33	19.29	2.2	BOX	PCC	2.83	1.85	89.8	0.27	1.87	3849	8121	6186
995459	I-90	83.89	C	unnamed trib	39	67		1.1	RND	PCC	1.9	1.9	53.4	0.15	0.6			
995453	I-90	84.16	C	Yakima R trib	39	33		1.1	RND	CST	0.61	0.61	68.4	0	0.04			
995465	I-90	88.42	C	Thorton Cr	39,1418	0		1.1	RND	CST	0.91	0.91	141.2	0	10.3			
991464	I-90	93.35	C	Morrison Canyon Cr	39,1230	33	3.95	1.1	RND	SPS	1.22	1.22	79.2	0	1	4032	2630	4507
998721	I-90	95.98	C	Taneum Cr trib	39	33		1.1	RND	PCC	1.52	1.52	44	0	1.1			
999303	I-90	99.39	C	Yakima R trib	39	0		1.1	RND	PCC	1.22	1.22	65.4	0	3.3			
991081	I-90	103.5	C	Independent wetland trib	39	67		1.1	RND	CST	0.61	0.61	79.6		1			
998735	SR 10	89.26	C	Teanaway R trib	39	33		1.1	RND	PCC	0.61	0.61	23	0	0.8			
990048	SR 129	0.9	C, FI	Buford Cr	35,2307	67	5.79	1.1	RND	SPS	3.35	3.35	54.9		6.6	6379	3233	14088
997942	SR 240	41.15	C	Columbia R trib	31	0		1.1	BOX	CPC	2.12	1.89	84.7	7	3.7			
990439	SR 241	8.8	C	Sulphur Cr Wstwy trib	37	0		1.1	RND	PCC	1.22	1.22	40.9	0.82	0.93			
990324	SR 261	0.2	C	Pataha Cr	35,0123	0		1.1	ARCH	CST	6.29	5.35	30	0.2	4.1			
990995	SR 261	5.5	C	Tucannon R trib	35	67		1.2	BOX	PCC	2.56	1.83	17.1	0	0.3			
990995	SR 261	5.5	C	Tucannon R trib	35	67		2.2	BOX	PCC	2.56	1.83	17.4	0	0.34			
990996	SR 261	7.4	C	Tucannon R trib	35	67		1.1	RND	CST	0.91	0.91	16.4	0	1.34			
998605	SR 410	75.57	C	American R trib	38	0		1.1	RND	PCC	0.61	0.61	23.8	1.2	10.34			
991018	SR 410	76.1	C	American R trib	38	33		1.1	RND	PCC	0.61	0.61	26.2	0	3.12			
998606	SR 410	76.38	C	American R trib	38	0		1.1	RND	CST	0.61	0.61	26.6	0.3	1.8	110		
990409	SR 410	82.8	C, FI	Wash Cr	38	67	7	1.1	RND	CST	3.05	3.05	34.1		2.5	222	278	506
998613	SR 410	83.94	C	American R trib	38	33		1.1	RND	PCC	0.61	0.61	18.3	0.08	0.67	323	10	1282
998614	SR 410	84.02	C	American R trib	38	0		1.1	RND	CST	0.91	0.91	17	2.05	4.8			
990003	SR 410	91.6	C	Bumping R trib	38	67		1.1	RND	PCC	0.46	0.46	18	0	2.4	100		
998887	SR 410	97.88	C	Gold Cr	38,0801	0	20.2	1.1	BOX	CPC	1.8	1.3	29.9	0	3.5	10292	12609	15976
998880	SR 410	107.55	C	Naches R trib	38	67		1.1	BOX	CPC	1.2	1.2	14.9	0	1.9			
991456	SR 821	0.38	C	Yakima R trib	39,0002A	33	8.84	1.1	RND	SPS	3.05	3.05	50	0.12	2	892	96	1714
998742	SR 823	2.86	C	Taylor Ditch trib	39	33		1.1	RND	CST	1.52	1.52	85.8	0.47	1.4			
999335	SR 903	7.09	C	No 3 Canyon	39,1436	0		1.1	RND	CST	1.3	1.3	26.1	0	2.4			
998724	SR 906	0.66	C	Coal Cr trib	39	33		1.1	RND	PCC	0.91	0.91	26.8	0.1	3.4			
998729	SR 906	1.43	C	Coal Cr trib	39	0		1.1	RND	PCC	1.52	1.52	23.9	0.45	5.6			
998731	SR 906	1.77	C	Coal Cr trib	39	0		1.1	BOX	CPC	2.5	2.5	22.9	0	5.2			
998733	SR 906	2.35	C	Coal Cr trib	39	67		1.1	RND	CPC	1.33	1.33	31.2	0	1	56		
991743	US 12	149.98	C	Millridge Cr trib	26	33	3.83	1.1	BOX	CPC	2.45	1.85	34.8	0.04	0.8	2028	1643	4015
998490	US 12	159.29	C	Andy Cr	38	67		1.1	RND	CST	0.91	0.91	17.5	0	2.9			
992140	US 12	168.28	C	Pine Cr	38	33	1.62	1.1	RND	PCC	0.84	0.84	17.7	0	2.14		133	89
990183	US 12	168.3	C	Hause Cr	38	0	7.16	1.1	BOX	PCC	1.22	1.22	15.2	0.12	5	950	383	1299
930791	US 12	347.86	B	Dry Cr	32	0												
990293	US 12	348.5	C	Mud Cr	32,0956	33	5.78	1.1	RND	CST	2.6	2.6	49.9	0.37	1.44	5963	502	2210
991746	US 12	390.59	C	Pataha Cr	35	33		1.1	BOX	CPC	18.9	5.34	7.3	0.29	1.3			
990955	US 12	426.1	C	Snake R trib	35	67		1.1	RND	CST	0.76	0.76	31.5	0	1.2			

Appendix IE. WSDOT South Central Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
990442	US 12	426.28	C	Snake R trib	35	67		1.1	RND	CST	0.76	0.76	33.7	0	1.7			
990564	US 12	430.01	C	Snake R trib	35	67		1.2	RND	CST	1.52	1.52	21.7	0	0.09			
990564	US 12	430.01	C	Snake R trib	35	67		2.2	RND	CST	1.52	1.52						
990565	US 12	431.36	C	Snake R trib	35	67		1.1	RND	CST	0.76	0.76	31.6	0	2.3			
990189	US 97	37.14	C, FI	Highbidge Springs	37	0	6.13	1.1	BOX	CPC	2.44	2.44	29		3	1127	739	1488
990129	US 97	143.25	C	Dry Cr	39.1049	67		1.2	BOX	CPC	1.53	1.22	25.5	0.15	0.78			
990129	US 97	143.25	C	Dry Cr	39.1049	67		2.2	BOX	CPC	1.53	1.22	25.5	0.15	0.78			
990130	US 97	144.89	C	Dry Cr	39.1049	0		1.2	SQSH	CST	1.45	0.91	27.1	0.49	0.55			
990130	US 97	144.89	C	Dry Cr	39.1049	0		2.2	SQSH	CST	1.45	0.91	27.1	0.49	0.96			

¹Field Codes**Codes Used for Culvert Shape**

ARCH - bottomless arch
 BOX - rectangular or square
 ELL - ellipse
 OTH - other
 RND - round
 SQSH - squash (pipe arch)

Codes Used for Culvert Materials

CAL - corrugated aluminium
 CMP - corrugated metal pipe
 CPC - cast in place concrete
 CST - corrugated steel
 OTH - other

Feature Type

B - bridge
 C - culvert
 D - dam
 DL - dike/levee
 EC - erosion control
 F - fill/punchoon
 FD - fill/debris
 FI - fishway
 FL - flume

²The culvert # identifies individual culverts at multiple stream crossings. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Appendix IF. WSDOT Eastern Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
998248	I-90	244.49	C	Negro Cr trib	34	0		1.2	BOX	CPC	3.05	3.65	107.3	1.1	1.66			
998248	I-90	244.49	C	Negro Cr trib	34	0		2.2	BOX	CPC	3.05	3.65	107.1	1.1	1.84			
997546	I-90	278	C	Garden Springs Cr	56.0005	33		1.1	RND	CST	0.91	0.91	27.6	0	2.6			
997547	I-90	278	C	Garden Springs Cr	56.0005	33		1.1	RND	PCC	0.46	0.46	17.3	0.06	1.85			
997545	I-90	279.09	C	Garden Springs Cr	56.0005	0		1.1	BOX	CPC	1.22	0.91	102.4	0	2.54			
999351	SR 20	297.48	C	Granite Cr	52.0368	0		1.2	RND	CST	0.95	0.95	21.2	0.25	0.7			
999351	SR 20	297.48	C	Granite Cr	52.0368	0		2.2	RND	CST	0.95	0.95	19.9	0.27	0.55			
999352	SR 20	297.75	C	Granite Cr	52.0368	33		1.1	BOX	CPC	2.44	1.22	17.4	0	2.9			
999353	SR 20	298.49	C	Granite Cr	52.0368	0		1.1	BOX	CPC	2.44	1.22	47.8	0	2.17			
999354	SR 20	299.79	C	NF Granite Cr	52.0372	0		1.1	BOX	CPC	1.22	1	21.4	0	3.09			
999356	SR 20	301.7	C	Granite Cr trib	52	0		1.1	BOX	CPC	1.3	1.3		2				
990310	SR 20	306.73	C	O' Brien Cr	52.0239	67		1.1	BOX	PCC	2.44	1.22	11.2	0	2.5			
990311	SR 20	307.72	C	O' Brien Cr	52.0239	67		1.1	BOX	PCC	2.44	1.22	11.6	0	3.44			
992119	SR 20	307.8	C	O' Brien Cr	52.0239	33		1.1	BOX	CPC	2.44	1.22	11.2	0	1.88			
999373	SR 20	317.28	C	NF O'Brien Cr trib	52.0410	0		1.1	RND	CST	0.99	0.99	26.8	0	4.67			
998865	SR 20	320.9	C	unnamed trib	58	0		1.1	RND	CST	0.46	0.46	36	0.13	15			
998866	SR 20	320.97	C	Pass Cr	58.0472	0		1.1	RND	PCC	0.76	0.76	73.4	0	27			
998867	SR 20	321.5	C	Pass Cr	58.0472	0		1.1	RND	PCC	0.61	0.61	32.3	0.1	16			
998869	SR 20	323.74	C	Sherman Cr	58.0428	0		1.1	BOX	CPC	1.87	1.87	43.8	0.26	5.4			
998870	SR 20	323.87	C	NF Sherman Cr	58.0073	0		1.1	BOX	CPC	1.55	1.55	47.2	0.13	5.8	200		
998791	SR 20	328.69	C	Milk Cr	58.0464	33		1.1	RND	PCC	0.61	0.61	24.8	0.4	0.9	120		
998794	SR 20	330.04	C	Hart Cr	58.0462	0		1.2	RND	PCC	0.61	0.61	16.7	0.27	2.6			
998794	SR 20	330.04	C	Hart Cr	58.0462	0		2.2	RND	CST	0.61	0.61	16.1	0.27	2.2			
998797	SR 20	333.19	C	Sherman Cr trib	58	0		1.1	RND	PCC	0.46	0.46	22.3	0	2.8	100		
998802	SR 20	336.54	C	Sherman Cr trib	58	33	3.48	1.1	RND	PCC	0.46	0.46	24.3	0.07	6.6	196	5	1302
998803	SR 20	336.89	C	Trout Cr	58.0434	0	7.65	1.2	RND	CST	0.91	0.91	18.2	0.83	0.16	4013	5259	10142
998803	SR 20	336.89	C	Trout Cr	58.0434	0	7.65	2.2	RND	CST	0.91	0.91	18.2	0.83	0.38	4013	5259	10142
992122	SR 20	361.49	C	Keogh Lk trib	59	67		1.1	RND	CST	0.61	0.61	32.5	0	2.92			
990303	SR 20	363.69	C	Narisse Cr	59.0252	0		1.2	RND	PCC	0.96	0.96	15.8	0	1.58			
990303	SR 20	363.69	C	Narisse Cr	59.0252	0		2.2	RND	CST	0.77	0.77	16.1	0.23	1.8			
990398	SR 20	365.59	C	Starvation Lk trib	59.0301	33		1.1	RND	CST	2.14	2.14	40	0	1.5			
997836	SR 20	365.6	C	Starvation Lk trib	59.0301	0		1.1	OTH	OTH	0.61	0.61	35.7	0.15	5.5			
997839	SR 20	371.38	C	Gap Cr	59.0330	0		1.1	RND	CST	0.91	0.91	22.4	0	2			
997841	SR 20	372.71	C	Little Pend Oreille R trib	59.0332	0		1.1	RND	CST	0.91	0.91	26.3	0.27	2			
997842	SR 20	372.76	C	Little Pend Oreille R trib	59	33		1.1	RND	CST	0.91	0.91	24.9	0.25	2.97	89		
991622	SR 20	373.7	C	L Pend Oreille R trib	59.0345	0		1.1	RND	CST	0.76	0.76	44.6	0.4	0.69			
990195	SR 20	378.29	C	Hosmer Cr	59.0364	67		1.2	RND	CST	0.91	0.91	31.1	0	1.8			
990195	SR 20	378.29	C	Hosmer Cr	59.0364	67		2.2	RND	CST	0.91	0.91	30.9	0	1.8			
990174	SR 20	378.74	C	Handle Cr	59.0370	67		1.3	SQSH	CST	1.07	0.7	27	0	2.4			
990174	SR 20	378.74	C	Handle Cr	59.0370	67		2.3	SQSH	CST	1.07	0.7	26.7	0	2.5			
990174	SR 20	378.74	C	Handle Cr	59.0370	67		3.3	SQSH	CST	1.07	0.7	26.8	0	1.9			
990881	SR 20	380.1	C	Lake Thomas trib	59	33		1.1	SQSH	CST	1.45	0.95	25.9	0	4.17			
997856	SR 20	381.34	C	Deer Cr	59.0383	33		1.1	ELL	CST	1.4	1.57	47.4		0.82			
997857	SR 20	381.93	C	Patchen Cr	59	67		1.1	RND	CST	0.91	0.91	41.3		1.43			

Appendix IF. WSDOT Eastern Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
997858	SR 20	382.37	C	Little Pend Oreille R trib	59.0389	0		1.1	RND	CST	0.91	0.91	31.5	0.39	1.8			
990250	SR 20	384.95	C	Lost Cr	62.0322	67		1.1	SQSH	CST	2.04	1.53	28.1	0	2	26001		
990350	SR 20	388.13	C	Renshaw Cr	62.0310	33		1.2	RND	CST	0.9	0.9	22.1	0	3.9	18229		
990350	SR 20	388.13	C	Renshaw Cr	62.0310	33		2.2	RND	CST	0.9	0.9	22.3	0	3.9	18229		
990351	SR 20	389.5	C, FI	Renshaw Cr	62.0310	0		1.1	SQSH	CST	1.92	1.4	23.7		2	1178		
997877	SR 20	399.16	C	Pend Oreille R trib	62	0		1.1	RND	PCC	0.61	0.61	26.2	0	6.2	0		
990353	SR 20	403.6	C	Reynolds Cr	62.0408	0	2.65	1.1	RND	PCC	0.76	0.76	43.5	0.27	3.01	15365	248	510
997880	SR 20	408.69	C	Pend Oreille R trib	62.0522	0		1.1	RND	CST	0.76	0.76	27.2	0	11	0		
990165	SR 20	409.58	C	Gardiner Cr	62.0525	67		1.2	RND	PCC	0.76	0.76	13.4	0	3.8	9341		
990165	SR 20	409.58	C	Gardiner Cr	62.0525	67		2.2	RND	PCC	0.76	0.76	14.2	0	3.4	9341		
990101	SR 20	411.4	C	Cusick Cr	62.0524	33		1.2	RND	PCC	0.76	0.76	19	0.02	2	44826		
990101	SR 20	411.4	C	Cusick Cr	62.0524	33		2.2	RND	PCC	0.76	0.76	18.8	0.03	1.8	44826		
997871	SR 20	426.24	C	Bracket Cr	62.0815	67		1.1	RND	CST	1.52	1.52	62.1	0	1.7			
998581	SR 21	9.02	DL	Sanpoil R trib	52	0												
990260	SR 21	110.97	C	Manilla Cr	52.0011	33		1.1	RND	CST	1.83	1.83						
990280	SR 21	115.6	C	Meadow Cr	52.0031	0		1.1	BOX	PCC	1.83	1.83	46.9	6.1	5.5			
990204	SR 21	117.05	C	Jack Cr	52.0046	0	3.13	1.1	BOX	PCC	1.52	1.52	17.8	1.5	2.3	673	277	792
990140	SR 21	120.18	C	Empire Cr	52.0058	0	3.78	1.1	BOX	PCC	1.22	0.91	27.4	1.25	2.5	1635	1179	1701
990242	SR 21	122.05	C	Lime Cr	52.0066	0	3.47	1.1	BOX	CPC	1.22	1.22	23.8	0.29	5	927	582	1244
990056	SR 21	123.64	C	Cache Cr	52.0068	33		1.1	BOX	PCC	0.91	1.22	10.4	0.3	0.7			
990275	SR 21	125.38	C	McAllister Cr	52.0082	0		1.1	RND	PCC	1.07	1.07	14.8	0	4.8			
990095	SR 21	132.16	C	Cub Cr	52.0123	67		1.1	RND	PCC	0.91	0.91	13.5	0	1.48			
990296	SR 21	134.33	C	N Nanamkin Cr	52.0136	67	8.86	1.3	RND	CST	0.76	0.76	15	0	0.53	10665	87423	51759
990296	SR 21	134.33	C	N Nanamkin Cr	52.0136	67	8.86	2.3	BOX	PCC	1.83	1.22	15	0	0.93	10665	87423	51759
990296	SR 21	134.33	C	N Nanamkin Cr	52.0136	67	8.86	3.3	SQSH	CST	1.75	1.22	15.4	0	-0.65	10665	87423	51759
990026	SR 21	136.61	C	Bear Cr	52.0148	33	3.61	1.1	BOX	CPC	1.83	1.83	17	0.17	4.83	911	694	1732
990013	SR 21	139.36	C	Anderson Cr	52.0171	0	3.58	1.1	BOX	CPC	2.44	1.22	15.1	0.8	2.12	760	858	1411
999362	SR 21	140.28	C	Sanpoil R trib	52.0174	67		1.1	BOX	CPC	2.44	1.22	13.4		1.27			
990306	SR 21	142.09	C	Nineteenmile Cr	52.0177	0		1.1	BOX	CPC	2.44	1.22	13.9	0.15	7.38			
990569	SR 21	146.76	C	Rattlesnake Gulch	52.0313	0	2.26	1.1	BOX	PCC	1.22	1.22	13.4		5.31	599	397	562
999367	SR 21	149.59	C	Sanpoil R trib	52	67		1.1	RND	PCC	0.61	0.61	10.1	0	1.39	104		
990428	SR 21	150.93	C	Tennille Cr	52.0323	67		1.1	RND	PCC	0.61	0.61	10.1		-0.29			
990408	SR 21	151.52	C	Sunset Cr	52	33		1.1	RND	OTH	0.61	0.61	12.6	0	4.8	87		
998580	SR 21	165.4	C	Curlw Cr	52.0288	67		1.1	SQSH	CST	1.7	1.2	18.6	0	2.4			
990097	SR 21	173.88	C	Curlw Cr	60.0288	67		1.1	RND	CST	1.52	1.52	17.3	0	1.21			
990098	SR 21	174.35	C	Curlw Cr	60.0288	33		1.1	RND	CST	1.83	1.83	13.7	0	0.87			
990099	SR 21	174.65	C	Curlw Cr	60.0288	67		1.1	RND	CST	1.83	1.83	16	0.25	1.25			
990399	SR 21	175.09	C	St Peter Cr	60.0305	0	3.67	1.1	RND	CST	1.07	1.07	21.3	0.55	3	1100	506	1501
990100	SR 21	177.09	C	Aeneas Cr	60.0300	67		1.1	RND	CST	0.84	0.84	20.7	0	2.65	166		
998817	SR 21	179.17	C	Tonasket Cr	60.0291	33		1.1	RND	CST	0.61	0.61	22.2	0	9.09			
998822	SR 21	185.18	C	Little Goosmus Cr	60.0263	33		1.1	RND	PCC	0.61	0.61	11.8	0.75	3.65			
998536	SR 23	1.92	C	Pleasant Valley Cr trib	34	33		1.2	RND	PCC	0.76	0.76	12.6	0	2.06	130		
998536	SR 23	1.92	C	Pleasant Valley Cr trib	34	33		2.2	RND	PCC	0.76	0.76	12.6		2.39	130		
990372	SR 23	52.28	C	Sheep Cr	43.0852	0	3.99	1.1	BOX	CPC	3.05	2.45	45.5	0.02	3.73	1510	851	3277

Appendix IF. WSDOT Eastern Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
998930	SR 25	17.84	C	Bockemuehl Canyon Cr	54	0		1.1	BOX	CPC	1.83	1.83	23.9	0.53	6			
991470	SR 25	33.62	C	O-Ra-Pak-En Cr trib	58.0127	0		1.1	RND	CST	0.91	0.91	36.6	0.4	2.5			
990315	SR 25	34.55	C	O-Ra-Pak-En Cr	58.0126	0		1.1	BOX	CPC	1.22	1.22	69.1	0	3.6			
990007	SR 25	37.73	C	Alder Cr	58.0134	0	6.61	1.1	BOX	CPC	1.52	1.83	20.4	0	6	9235	6241	17620
990198	SR 25	42.33	C	Hunters Cr	58.0146	0	4.87	1.1	BOX	CPC	3.96	1.68	27.1	0.35	2.5	2205	1785	6086
998854	SR 25	46.06	C	Harvey Cr	58.0200	33		1.1	BOX	CPC	1.55	1.83	58.5	0	2.7			
998856	SR 25	55.74	C	Deer Cr	58.0221	0		1.2	RND	PCC	0.46	0.46	12.6	0.33	4.75			
998856	SR 25	55.74	C	Deer Cr	58.0221	0		2.2	RND	PCC	0.61	0.61	12.7	0.29	5.45			
998857	SR 25	60.08	C	Lake Roosevelt trib	58	0		1.1	RND	CST	0.61	0.61	28	0.83	8.8	175		
990258	SR 25	61.59	C	Daisy Magee Cr	58.0357	33		1.1	BOX	PCC	1.95	1.83		0.2				
998860	SR 25	66.01	C	Cheweka Cr	58.0361	0		1.1	BOX	CPC	1.22	1.22	32	1.05	3.4			
998861	SR 25	66.14	C	Cheweka Cr trib	58	33		1.1	RND	CST	0.61	0.61	23.8	0	5.9			
998862	SR 25	67.91	C	Quillisacut Cr	58.0387	0		1.1	RND	PCC	1.22	1.22	65.9	0	2.6			
998864	SR 25	76.15	C	Hallam Cr	58.0424	33		1.1	RND	CST	0.46	0.46	14.1	0	2.1			
990343	SR 25	84.57	C	Pingston Cr	61.0007	33		1.1	BOX	CPC	1.22	1.22	40.6	0.18	3.4			
990319	SR 25	108.94	C	Onion Cr	61.0098	0		1.1	BOX	CPC	2.45	1.85	30	0	2.1			
998844	SR 25	111.95	C	Fivemile Cr	61.0148	0		1.1	RND	PCC	0.76	0.76	66.4	0	13			
998847	SR 25	119.87	C	Boundary Cr	61.0163	0		1.1	RND	CST	1.52	1.52	42.7	0.45	4.5			
998352	SR 26	107.78	C	Willow Cr	34.0131	33		1.2	BOX	CPC	3.05	2.44	30.6	0.7	0.41			
998352	SR 26	107.78	C	Willow Cr	34.0131	33		2.2	BOX	CPC	3.05	2.44	31.9	0.7	0.21			
998365	SR 26	131.86	C	Palouse R trib	34	33		1.1	RND	PCC	0.76	0.76	46.9	0	3.69			
998366	SR 26	132.14	C	Palouse R trib	34	0		1.1	RND	PCC	1.07	1.07	61.9	0.4	4.1			
998367	SR 26	132.43	C	Palouse R trib	34	0		1.1	RND	OTH	0.91	0.91	61.9	0	4.97			
998417	SR 27	2.47	C	Missouri Flat Cr trib	34	67		1.1	RND	PCC	1.22	1.22	36.1	0	1.83			
998418	SR 27	4.69	C	Rose Cr trib	34	33		1.1	BOX	PCC	1.83	1.83	28.4	0	1.44			
998419	SR 27	5.12	C	Rose Cr	34.2269	33		1.2	BOX	PCC	2.59	1.22	22.1	0	3.17			
998419	SR 27	5.12	C	Rose Cr	34.2269	33		2.2	BOX	PCC	2.59	1.22	23.5	0	2.9			
998445	SR 27	14.86	C	Palouse R trib	34	33		1.1	OTH	OTH	1.53	1.53	160.9	0	2.31			
998449	SR 27	16.85	C	Duffield Cr	34.2856	33		1.1	BOX	CPC	3.05	1.83	61	0	4.6			
998450	SR 27	17.22	C	Palouse R trib	34	33		1.1	RND	OTH	0.91	0.91	49.7	0.16	2.05	100		
998521	SR 27	29.31	C	Kelly Cr trib	34	67		1.1	BOX	CPC	1.83	1.83	16.1	0	2.9			
998529	SR 27	39.33	C	Pine Cr trib	34	33		1.1	RND	CST	1.75	1.75	21	0	2.47			
990352	SR 31	0.6	C	Renshaw Cr	62.0310	0		1.1	RND	CST	0.76	0.76	29.6	2.3	3.8	9541		
997883	SR 31	0.85	C	Diamond Cr	62.0312	67		1.1	RND	CST	0.46	0.46	30.1	0.31	1.7	7771		
990201	SR 31	3.75	C	Ione Millpond	62.0279	0	11.73	1.1	BOX	PCC	2.13	2.44	27.9	0	2.68	41801	15371	143218
997885	SR 31	7.39	C	Pend Oreille R trib	62.0254	0		1.1	RND	CST	0.61	0.61	23.5	2.1	3.6			
998573	SR 31	9.4	C	Lost Cr	62.0248	0		1.1	RND	PCC	0.91	0.91	37.7	0.96	12.2	67368		
990416	SR 31	10.7	C	Sweet Cr	62.0224	33	3.17	1.1	BOX	CPC	2.29	2.59	22.7	0.6	2.4	75719	692	769
997535	SR 31	12.98	C	Linton Cr	62.0214	33		1.1	RND	PCC	1.22	1.22	44.4	0.35	3.65	4810		
997541	SR 31	24.34	C	Lime Cr	62.0014	33		1.1	RND	PCC	0.91	0.91	13.5	0	1.85	9123		
999174	SR 127	11.22	C	Snake R trib	35	67		1.1	BOX	CPC	2.45	1.87	16.1	0	1.7			
999176	SR 127	12.38	C	Snake R trib	35	33		1.1	BOX	CPC	2.58	1.83	26.4	0.1	4.8			
999269	SR 174	28.87	C	Lake Roosevelt trib	53	0		1.1	BOX	CPC	2.44	2.24	58.5	0.55	4			
990012	SR 194	0.1	C	Almota Cr	35	33		1.1	SQSH	SPS	4.9	3.35	43.6	0	1.5			

Appendix IF. WSDOT Eastern Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
998375	SR 194	1.34 C		Little Almota Cr	35	0	6.19	1.1 RND	CST	CST	2.77	2.77	44	1.14	3.9	2470	2245	3208
998375	SR 194	15.08 C		Wilbur Cr	34.0285	0		1.1 SQSH	CST	CST	2.55	1.69	22.8	0.55	2.7			
998376	SR 194	15.75 C		Wilbur Cr	34.0285	67		1.1 SQSH	CST	CST	2.15	1.62	24.7	0.1	1.94			
998377	SR 194	15.86 C		Wilbur Cr trib	34	0		1.1 SQSH	CST	CST	1.22	0.89	18.5	0.78	4.26	1190		
998654	SR 206	7.11 C		Deadman Cr trib	55.0092	67		1.1 BOX	CPC	CPC	1.52	1.22	10.1	0	2.08			
998655	SR 206	7.5 C		Deadman Cr trib	55.0102	67		1.1 RND	CST	CST	0.91	0.91	19.8	0	2.1			
998657	SR 206	9 C		Deadman Cr trib	55.0109	0		1.1 RND	CST	CST	0.91	0.91	17.2	0.4				
998659	SR 206	9.89 C		Deadman Cr trib	55.0112	33		1.1 SQSH	CST	CST	1.95	1.51	13.2	0	3.34			
997863	SR 211	7.45 C		Deer Cr	62.0780	33		1.1 RND	PCC	PCC	0.76	0.76	32	0.14	1.3	29605		
991465	SR 231	18.38 C		Upper Crab Cr trib	43	67		1.2 RND	CST	CST	1.52	1.52	18	0	1.05			
991465	SR 231	18.38 C		Upper Crab Cr trib	43	67		2.2 RND	CST	CST	1.52	1.52	19	0	2.1			
991466	SR 231	24.69 C		Upper Crab Cr trib	43	67		1.2 RND	CST	CST	1.83	1.83	18.1	0	0.55			
991466	SR 231	24.69 C		Upper Crab Cr trib	43	67		2.2 RND	CST	CST	1.83	1.83	18.2	0	0.99			
998271	SR 231	27.82 C		Crab Cr	43	67		1.2 RND	CST	CST	1.83	1.83	18.2	0	1.59			
998271	SR 231	27.82 C		Crab Cr	43	67		2.2 RND	CST	CST	1.83	1.83	18.2	0	1.48			
991683	SR 231	36.09 C		Spring Cr trib	54	0		1.1 BOX	PCC	PCC	1.83	1.22	16.1	0.55	2.5			
997861	SR 231	70.06 C		Jump-off Joe Cr	59.0786	0		1.1 BOX	CPC	CPC	2.17	0.93	11.6	0.22	2.9			
997862	SR 231	70.96 C		Bulldog Cr	59.0781	67		1.1 RND	OTH	OTH	0.61	0.61	15.9	0	1.1			
998369	SR 270	0.06 C		unnamed trib	34	33		1.1 RND	PCC	PCC	0.91	0.91	36.9	0.15	1.03			
998370	SR 270	1.5 C		SF Palouse R trib	34	67		1.1 BOX	PCC	PCC	1.22	1.27	65.8	0	1.1			
998403	SR 272	7.07 C		Clear Cr trib	34	0		1.2 RND	CST	CST	0.76	0.76	11.4	0.6	2.11	136		
998403	SR 272	7.07 C		Clear Cr trib	34	0		2.2 RND	CST	CST	0.76	0.76	11.3	0.6	2.74	136		
998405	SR 272	9.88 C		Brush Cr	34.2679	67		1.1 RND	CST	CST	0.91	0.91	12.2	0	1.61			
997854	SR 292	2.96 C		Sheep Cr	59.0861	33		1.1 RND	PCC	PCC	1.22	1.22	61.6	0.36	1.05			
990113	US 2	304.4 C, FI		Deer Cr	55.0380	33		1.1 BOX	PCC	PCC	2.13	2.74						
998467	US 195	0.01 C		unnamed North Pine Cr trib trib	34	33		1.2 RND	CST	CST	1.52	1.52	37.7	0	1.55			
998467	US 195	0.01 C		unnamed North Pine Cr trib trib	34	33		2.2 RND	CST	CST	1.52	1.52	37.5	0	1.93			
995673	US 195	0.05 C		Hawai Cr trib	35	0		1.1 BOX	CPC	CPC	1.55	1.85	85.8	0.3	2.8			
998382	US 195	4.35 C		Spring Cr	34.0452	33		1.2 RND	CST	CST	1.68	1.68	30.7	0	1.66			
998382	US 195	4.35 C		Spring Cr	34.0452	33		2.2 RND	CST	CST	1.68	1.68	28	0.33	0.93			
998383	US 195	8.04 C		Union Flat Cr trib	34	67		1.1 RND	CST	CST	1.37	1.37	36.1	0	2.17			
998388	US 195	11.91 C		Union Flat Cr trib	34	67		1.1 BOX	CPC	CPC	1.83	1.22	21.3	0	1.97			
998394	US 195	22.78 C		unnamed trib	34	67		1.1 SQSH	CST	CST	1.8	1.14	27		1.26			
998397	US 195	25.97 C		SF Palouse R trib	34	67		1.1 BOX	CPC	CPC	1.83	1.83	26.2	0	3.02			
998398	US 195	30.73 C		Spring Flat Cr trib	34	67		1.2 BOX	CPC	CPC	0.91	0.61	41.9	0	2.53			
998398	US 195	30.73 C		Spring Flat Cr trib	34	67		2.2 BOX	CPC	CPC	0.91	0.61	41.9	0	2.53			
998431	US 195	43.17 C		Dry Cr trib	34	33		1.1 BOX	CPC	CPC	1.83	1.22	22.1	0	1.88	483		
998436	US 195	45.03 C		Dry Cr trib	34	0		1.1 RND	PCC	PCC	0.91	0.91	29.5	0.72	4.5			
998438	US 195	47.82 C		unnamed Dry Cr trib trib	34	67		1.2 BOX	CPC	CPC	3.05	1.22	24	0.35	0.58			
998438	US 195	47.82 C		unnamed Dry Cr trib trib	34	67		2.2 BOX	CPC	CPC	3.05	1.22	22.7	0.35	0.71			
998439	US 195	47.83 C		Dry Cr trib	34	67		1.1 RND	CST	CST	1.68	1.68	30.9	0.3	-0.65	200		
998469	US 195	62.86 C		Pine Cr trib	34	0		1.2 RND	SPS	SPS	2.59	2.59	89.9	0	0			
998469	US 195	62.86 C		Pine Cr trib	34	0		2.2 RND	SPS	SPS	2.59	2.59	89.1	0	0.71			
998466	US 195	70.61 C		unnamed North Pine Cr trib trib	34	0		1.2 RND	CST	CST	1.52	1.52	43.1	0	2.3			

Appendix IF. WSDOT Eastern Region Fish Passage Barriers. Sorted by road and milepost. (as of June 3, 2019)

Site Id	Road	Milepost	Feature Type ¹	Stream Name	WRIA	% Fish Passable	PI	Culvert # ²	Culvert Shape ¹	Culvert Material ¹	Span (m)	Rise (m)	Length (m)	WS Drop (m)	% Slope	Lineal Gain (m)	Spawn Area (m)	Rear Area (m)
998466	US 195	70.61	C	unnamed North Pine Cr trib trib	34	0		2.2	RND	CST	1.52	1.52	43.1	0	2.49			
998465	US 195	70.62	C	unnamed North Pine Cr trib trib	34	0		1.2	RND	CST	1.52	1.52	52.4	0	2.29			
998465	US 195	70.62	C	unnamed North Pine Cr trib trib	34	0		2.2	RND	CST	1.52	1.52	52.8	0	1.95			
999277	US 195	90.57	C	Hangman Cr trib	56	33		1.2	RND	PCC	1.45	1.45	91.5	0	1.6			
999277	US 195	90.57	C	Hangman Cr trib	56	33		2.2	RND	PCC	1.45	1.45	92.5	0	1.5			
994273	US 195	93.39	C	Marshall Cr	56.0008	0	8.04	1.1	BOX	CPC	1.91	1.91	63.6	1.39	1.4	54960	5522	104145
997531	US 195	94.58	C	Hangman Cr trib	56.0007	67		1.1	RND	OTH	0.91	0.91	127.5	0	0.35			
997532	US 195	94.9	C	Crystal Springs Cr	56.0006	67		1.1	ELL	SPS	2.29	2.51	101.6	0	1.16	78		
997543	US 195	95.77	C	Garden Springs Cr	56.0005	33		1.2	RND	CST	0.91	0.91	75.9	0	7.5			
997543	US 195	95.77	C	Garden Springs Cr	56.0005	33		2.2	RND	CST	0.91	0.91	76.2	0	7.5			
990125	US 395	174.95	C	Dragoon Cr	55.0163	33		1.2	BOX	CPC	3.05	3.66	43.1	0	-0.18			
990125	US 395	174.95	C	Dragoon Cr	55.0163	33		2.2	BOX	CPC	3.05	3.66	43.1	0	-0.18			
991001	US 395	183.72	C	Beaver Cr trib	55.0298	33		1.1	RND	PCC	1.22	1.22	29.9	0	1.9			
997495	US 395	198.1	C	Bulldog Cr	59.0781	33		1.1	RND	PCC	0.91	0.91	40.1	0	0.95			
990157	US 395	204.79	C	Franzwa Cr	59.0687	33		1.1	RND	PCC	0.91	0.91	31	0	1.9			
990074	US 395	207.25	C	Chewela Cr	59.1539	67		1.2	BOX	OTH	3.05	1.24	57.9	0	0.58			
990074	US 395	207.25	C	Chewela Cr	59.1539	67		2.2	OTH	OTH	1.74							
991557	US 395	208.2	C	Paye Cr	59.0533	33		1.2	RND	CST	1.07	1.07	30.1	0.5	1.06			
991557	US 395	208.2	C	Paye Cr	59.0533	33		2.2	RND	CST	1.07	1.07	30.9	0.5	1.13			
997853	US 395	212.77	C	Colville R trib	59.0516	0		1.1	RND	CAL	0.46	0.46	45.4	0.96	3.68			
990573	US 395	212.8	C	Colville R trib	59	0	2.91	1.1	RND	PCC	0.76	0.76	50.3	0.79		1155	1478	1848
990005	US 395	215.88	C	Addy Cr	59.0455	33		1.1	RND	CST	0.76	0.76	26.5	0	3.6			
990451	US 395	219.3	C	Twelvemile Cr	59.0403	0		1.1	BOX	OTH	0.61	0.61	57.9	0	3.59			
997848	US 395	228.65	C	Colville R trib	59.0209	0		1.1	SQSH	CST	1.72	1.27	49.1	0.82	3.61	353		
990106	US 395	247.77	C	Deadman Cr	60.0008	0	11.48	1.1	BOX	CPC	2.45	1.77	45.7	0.55	11	38197	49777	131546
998826	US 395	249.66	C	Kettle R trib	60.0055	33		1.1	RND	PCC	0.61	0.61	14.7		7.4			
990124	US 395	250.19	C	Doyle Cr	60.0060	0		1.1	RND	PCC	1.22	1.22	21.3	0	12	44		
998827	US 395	251.96	C	Hodgson Cr	60.0067	0		1.2	RND	OTH	0.76	0.76	54.3	1.2	36.5	71		
998827	US 395	251.96	C	Hodgson Cr	60.0067	0		2.2	RND	OTH	0.76	0.76	55.5	1.2	36.5	71		
998831	US 395	261.62	C	Martin Cr	60.0185	0		1.1	RND	PCC	0.84	0.84	27	0	14.43	128		
998832	US 395	263.91	C	Jenny Cr	60.0210	33		1.1	RND	PCC	0.61	0.61	14.1	0.11	4.95			
998834	US 395	267.13	C	Kerry Cr	60.0216	33		1.1	BOX	CPC	1.84	1.23	35	0	5.71			
998835	US 395	267.68	C	Kettle R trib	60.0218	33		1.1	RND	PCC	0.76	0.76	26.6	0	4.96	99		
998833	US 395	271.13	C	Kettle R trib	60.0215	33		1.1	RND	PCC	0.46	0.46	15.8	0	7.14			

¹Field Codes**Codes Used for Culvert Shape**

ARCH - bottomless arch

BOX - rectangular or square

ELL - ellipse

OTH - other

RND - round

SQSH - squash (pipe arch)

Codes Used for Culvert Materials

CAL - corrugated aluminium

CMP - corrugated metal pipe

CPC - cast in place concrete

CST - corrugated steel

OTH - other

Codes Used for Culvert Materials

PCC - precast concrete

PVC - plastic

SPA - structural plate aluminium

SPS - structural plate steel

SST - smooth steel

Feature Type

B - bridge

C - culvert

D - dam

DL - dike/levee

EC - erosion control

F - fill/puncheon

FD - fill/debris

FI - fishway

FL - flume

²The culvert # identifies individual culverts at multiple stream crossings. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Appendix II

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	995295	I-5; NB ROW	141.17	unnamed	EF Hylebos Cr	10	King	Yes
NW	995292	I-5	141.54	unnamed	EF Hylebos Cr	10	King	Yes
NW	995297	I-5; SB Ext 142B	141.84	unnamed	EF Hylebos Cr	10	King	Yes
NW	995293	I-5; SB Ext 142 B	142.1	unnamed	EF Hylebos Cr	10	King	Yes
NW	992364	I-5	143.6	unnamed	WF Hylebos Cr	10	King	Yes
NW	995299	I-5; NB Ext 143	143.75	unnamed	WF Hylebos Cr	10	King	Yes
NW	995300	I-5; NB Ext 143	143.9	unnamed	WF Hylebos Cr	10	King	Yes
NW	933613	I-5; ROW S 288th St	145.81	Bingaman Cr	Bingaman Pond	9	King	Yes
NW	991031	I-5	145.93	Bingaman Cr	Bingaman Pond	9	King	Yes
NW	996030	I-5; NB to I-405	154.39	Gilliam Cr	Green R	9	King	Yes
NW	998964	I-5; NB off-ramp	154.48	unnamed	unnamed Green R trib	9	King	Yes
NW	934543	I-5	172.38	unnamed	SF Thornton Cr	8	King	No
NW	994562	I-5	174.71	Thornton Cr	Lake Washington	8	King	Yes
NW	994842	I-5; ROW	175	unnamed	Thornton Cr	8	King	Yes
NW	102 M048	I-5; Service Rd	177.85	unnamed	McAleer Cr	8	Snohomish	Yes
NW	102 M046	I-5; WB Ext 177	177.85	McAleer Cr	Lake Washington	8	Snohomish	Yes
NW	990273	I-5	177.93	McAleer Cr	Lake Washington	8	Snohomish	Yes
NW	996229	I-5	183.33	unnamed	Swamp Cr	8	Snohomish	No
NW	102 N218	I-5	186.93	unnamed	North Cr	8	Snohomish	No
NW	993091	I-5	187.64	unnamed	Silver Lk	8	Snohomish	Yes
NW	993124	I-5; ROW	187.89	unnamed	Silver Lk	8	Snohomish	Yes
NW	930252	I-5	187.93	unnamed	Penny Cr	8	Snohomish	Yes
NW	995262	I-5	189.9	unnamed	Wood Cr	7	Snohomish	No
NW	933665	I-5	196.24	unnamed	Snohomish R	7	Snohomish	Yes
NW	996076	I-5; NB Ext 210	210.01	unnamed	Stillaguamish R	5	Snohomish	Yes
NW	990623	I-5; SB	211.7	Secret Cr	Pilchuck Cr	5	Snohomish	Yes
NW	992181	I-5	213.27	unnamed	unnamed to Pilchuck Cr	5	Snohomish	Yes
NW	992182	I-5	213.27	unnamed	unnamed to Pilchuck Cr	5	Snohomish	Yes
NW	991979	I-5	213.29	unnamed	unnamed	5	Snohomish	Yes
NW	992175	I-5	213.66	unnamed	Secret Cr	5	Snohomish	Yes
NW	LP66	I-5	213.86	unnamed	Secret Cr	5	Snohomish	Yes
NW	996077	I-5	214.38	unnamed	WF Church Cr	5	Snohomish	Yes
NW	996074	I-5	214.65	unnamed	WF Church Cr	5	Snohomish	Yes
NW	996454	I-5	214.65	unnamed	WF Church Cr	5	Snohomish	Yes
NW	996071	I-5	214.73	WF Church Cr	Church Cr	5	Snohomish	Yes
NW	996073	I-5	214.74	WF Church Cr	Church Cr	5	Snohomish	Yes
NW	995242	I-5; NB Ext 218	218	unnamed	unnamed	3	Skagit	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	995221	I-5	218.01	unnamed	unnamed	3	Skagit	No
NW	991725	I-5	224.62	Maddox Cr	SF Skagit R	3	Skagit	Yes
NW	CR122	I-5	225.24	Martha Washington Cr	Maddox Cr	3	Skagit	Yes
NW	995227	I-5; NB	234.65	unnamed	Samish R	3	Skagit	No
NW	995228	I-5	235.65	unnamed	Samish R	3	Skagit	No
NW	995245	I-5; NB off-ramp	240.92	unnamed	Friday Cr	3	Skagit	Yes
NW	995236	I-5; SB Ext 240	240.92	unnamed	Friday Cr	3	Skagit	Yes
NW	995233	I-5; Median	240.95	unnamed	Friday Cr	3	Skagit	Yes
NW	995232	I-5; NB	240.95	unnamed	Friday Cr	3	Skagit	Yes
NW	995234	I-5; SB	240.95	unnamed	Friday Cr	3	Skagit	Yes
NW	995235	I-5; SB ROW	240.95	unnamed	Friday Cr	3	Skagit	Yes
NW	995240	I-5; SB Ext 240	240.99	unnamed	Friday Cr	3	Skagit	Yes
NW	995241	I-5; NB Ext 240	241.03	unnamed	Friday Cr	3	Skagit	Yes
NW	995238	I-5; SB	241.03	unnamed	Friday Cr	3	Skagit	Yes
NW	995246	I-5; NB Ext 240	241.1	unnamed	unnamed Friday Cr trib	3	Skagit	Yes
NW	995259	I-5; SB Ext 240	241.1	unnamed	unnamed Friday Cr trib	3	Skagit	Yes
NW	995249	I-5	242.03	unnamed	Friday Cr	3	Skagit	Yes
NW	370614	I-5	243.43	unnamed	Samish Lk	3	Whatcom	Yes
NW	FR73	I-5; SB	243.91	unnamed	Samish Lk	3	Whatcom	Yes
NW	995250	I-5; NB	243.96	unnamed	Samish Lk	3	Whatcom	Yes
NW	990025	I-5; NB	244.2	Barnes Cr	Samish Lk	3	Whatcom	Yes
NW	994501	I-5; SB	244.2	Barnes Cr	Samish Lk	3	Whatcom	Yes
NW	FR75	I-5	245.76	Lake Cr	Samish Lk	3	Whatcom	Yes
NW	995247	I-5; NB Ext 246	246	unnamed	unnamed	3	Whatcom	Yes
NW	995248	I-5; NB Ext 246	246	unnamed	unnamed	3	Whatcom	Yes
NW	995256	I-5; SB Ext 246	246.12	unnamed	Lake Cr	3	Whatcom	Yes
NW	995255	I-5; SB Ext 246	246.22	unnamed	Lake Cr	3	Whatcom	Yes
NW	995411	I-5	246.75	Chuckanut Cr	Puget Sound	1	Whatcom	Yes
NW	994233	I-5	250.55	Padden Cr	Bellingham Bay	1	Whatcom	Yes
NW	995699	I-5	251.36	unnamed	Connelly Cr	1	Whatcom	Yes
NW	992003	I-5; NB on-ramp	256	Spring Cr	Baker Cr	1	Whatcom	Yes
NW	990022	I-5	256.28	Baker Cr	Squalicum Cr	1	Whatcom	Yes
NW	995701	I-5	258.56	unnamed	unnamed to Silver Cr	1	Whatcom	No
NW	995703	I-5	259.08	unnamed	unnamed	1	Whatcom	No
NW	995723	I-5; NB Ext 260	260	unnamed	Silver Cr	1	Whatcom	Yes
NW	995709	I-5	260.98	unnamed	Tennant Cr	1	Whatcom	Yes
NW	995715	I-5	268.63	unnamed	California Cr	1	Whatcom	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	995731	I-5; SB Ext 270	270.14	unnamed	unnamed California Cr trib	1	Whatcom	Yes
NW	995720	I-5; NB	270.14	unnamed	unnamed California Cr trib	1	Whatcom	Yes
NW	933400	I-5; NB; ROW	270.2	unnamed	unnamed California Cr trib	1	Whatcom	Yes
NW	995726	I-5	275.33	Cain Cr	Semiahmoo Bay	1	Whatcom	Yes
NW	933867	I-90	6.78	unnamed	Lake Washington	8	King	No
NW	994412	I-90	10.21	Richards Cr	Lake Washington	8	King	No
NW	996251	I-90	10.52	Sunset Cr	Richards Cr	8	King	Yes
NW	996478	I-90	12.75	unnamed	Lake Sammamish	8	King	Yes
NW	992798	I-90	13.83	Lewis Cr	Lake Sammamish	8	King	Yes
NW	994415	I-90	14.83	W Village Park Cr	Lake Sammamish	8	King	Yes
NW	932343	I-90	15.14	unnamed	Lake Sammamish	8	King	Yes
NW	996477	I-90; WB onramp	15.82	unnamed	Tibbetts Cr	8	King	Yes
NW	996967	I-90; WB on-ramp	15.89	unnamed	Tibbetts Cr	8	King	Yes
NW	996472	I-90	15.92	unnamed	Tibbetts trib	8	King	Yes
NW	996966	I-90; EB on-ramp	15.92	unnamed	Tibbetts trib	8	King	Yes
NW	991182	I-90	16.21	unnamed	Tibbetts Cr	8	King	Yes
NW	996965	I-90	20.42	unnamed	EF Issaquah Cr	8	King	Yes
NW	932089	I-90; EB	21.82	unnamed	EF Issaquah Cr	8	King	No
NW	994410	I-90	23.13	Soderman Cr	Raging R	7	King	Yes
NW	994984	I-90	24.86	unnamed	Lake Cr	7	King	Yes
NW	995857	I-405; NB on-ramp	0.42	Gilliam Cr	Green R	9	King	Yes
NW	998967	I-405	0.61	Gilliam Cr	Green R	9	King	Yes
NW	995470	I-405	2.31	Rolling Hills Cr	Springbrook Cr	9	King	Yes
NW	994406	I-405	3.06	Rolling Hills Cr	Springbrook Cr	9	King	Yes
NW	998969	I-405	4.61	unnamed	Lake Washington	8	King	No
NW	996482	I-405	5.09	Johns Cr	Lake Washington	8	King	Yes
NW	933259	I-405	7.61	unnamed	Lake Washington	8	King	Yes
NW	996032	I-405	7.62	unnamed	Lake Washington	8	King	Yes
NW	998971	I-405	7.83	unnamed	Lake Washington	8	King	Yes
NW	998972	I-405	7.9	unnamed	Lake Washington	8	King	Yes
NW	934704	I-405	8.18	unnamed	Lake Washington	8	King	No
NW	932933	I-405	10.06	unnamed	Coal Cr	8	King	Yes
NW	933258	I-405	12.03	Trail Cr	Mercer Sl	8	King	No
NW	998974	I-405; SB	12.51	Hixson Cr	Mercer Sl	8	King	No
NW	933244	I-405	13.16	Sturtevant Cr	Kelsey Cr	8	King	Yes
NW	992385	I-405	15.09	Yarrow Cr	Lake Washington	8	King	Yes
NW	998982	I-405	19.07	unnamed	Forbes Cr	8	King	No

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	932812	I-405	20.5	unnamed	Juanita Cr	8	King	Yes
NW	992654	I-405	20.95	unnamed	Juanita Cr	8	King	Yes
NW	998602	I-405	21.94	Juanita Cr	Lake Washington	8	King	Yes
NW	993106	I-405	25.35	unnamed	North Cr	8	Snohomish	No
NW	08.0070 A 0.25	I-405	26.46	Perry Cr	North Cr	8	Snohomish	Yes
NW	993109	I-405	26.9	unnamed	Queensborough Cr	8	Snohomish	Yes
NW	991008	I-405;NB	27.7	unnamed	North Cr	8	Snohomish	No
NW	998976	I-405; SB	27.76	unnamed	North Cr	8	Snohomish	No
NW	998977	I-405; SB	27.83	unnamed	North Cr	8	Snohomish	Yes
NW	934011	SR 9; ROW (Broadway Ave)	0.07	unnamed	unnamed Thomas Cr trib	7	Snohomish	Yes
NW	934015	SR 9; ROW (Broadway Ave)	0.12	unnamed	unnamed Thomas Cr trib	7	Snohomish	Yes
NW	102 L012	SR 9	0.17	Howell Cr	Little Bear Cr	8	Snohomish	Yes
NW	995982	SR 9	10.61	Cemetery Cr	Snohomish R	7	Snohomish	Yes
NW	995087	SR 9	12.57	Bunk Foss Cr	Pilchuck R	7	Snohomish	Yes
NW	999168	SR 9	14	Cenntenial Cr	Pilchuck R	7	Snohomish	No
NW	995086	SR 9	16.66	Hulbert Cr	Ebey Sl	7	Snohomish	Yes
NW	991813	SR 9	17.75	unnamed	Stevens Cr	7	Snohomish	Yes
NW	991814	SR 9	18.79	unnamed	Lake Stevens	7	Snohomish	No
NW	995084	SR 9	22.72	unnamed	Quilceda Cr	7	Snohomish	Yes
NW	102 Q028	SR 9	24.44	unnamed	Quilceda Cr	7	Snohomish	Yes
NW	990255	SR 9	27.24	unnamed	Portage Cr	5	Snohomish	Yes
NW	996079	SR 9	27.94	unnamed	unnamed Portage Cr trib	5	Snohomish	Yes
NW	991166	SR 9	32.2	Bryant Cr	Armstrong Cr	5	Snohomish	Yes
NW	996080	SR 9	33.2	Roth Cr	Stillaguamish R	5	Snohomish	Yes
NW	996082	SR 9	34.23	unnamed	Pilchuck Cr	5	Snohomish	Yes
NW	LP23	SR 9	35.46	unnamed	unnamed Pilchuck Cr trib	5	Snohomish	Yes
NW	LP19	SR 9	37.26	unnamed	unnamed Pilchuck Cr trib	5	Snohomish	No
NW	996088	SR 9	38.14	unnamed	unnamed	5	Skagit	No
NW	996089	SR 9	38.27	unnamed	unnamed	5	Skagit	No
NW	LP31	SR 9	38.64	unnamed	unnamed	5	Skagit	No
NW	LP32	SR 9	38.69	unnamed	unnamed	5	Skagit	Yes
NW	991158	SR 9	38.83	unnamed	Pilchuck Cr	5	Skagit	Yes
NW	NC158	SR 9	39.16	unnamed	Lake McMurray	3	Skagit	Yes
NW	995275	SR 9	39.51	unnamed	Lake McMurray	3	Skagit	No
NW	NC180	SR 9	39.69	unnamed	Lake McMurray	3	Skagit	Yes
NW	NC170	SR 9	39.87	unnamed	unnamed	3	Skagit	Yes
NW	990641	SR 9	40.08	Lake Cr	Lake McMurray	3	Skagit	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	NC166	SR 9	40.77	unnamed	Lake McMurray	3	Skagit	Yes
NW	990091	SR 9	41.04	Norway Park Cr	Lake McMurray	3	Skagit	Yes
NW	991451	SR 9	41.5	unnamed	Lake Cr	3	Skagit	No
NW	NC164	SR 9	41.93	unnamed	Lake Cr	3	Skagit	Yes
NW	NC163	SR 9	43.08	unnamed	Lake Cr	3	Skagit	Yes
NW	NC69	SR 9	49	unnamed	Nookachamps Cr	3	Skagit	Yes
NW	HC53	SR 9	59.08	unnamed	unnamed	3	Skagit	Yes
NW	HC93	SR 9	59.46	unnamed	Hansen Cr	3	Skagit	Yes
NW	991114	SR 9	62.36	unnamed	Samish R	3	Skagit	Yes
NW	SR71	SR 9	63.74	unnamed	Samish R	3	Skagit	Yes
NW	SR67	SR 9	64.45	unnamed	Samish R	3	Skagit	No
NW	991135	SR 9	64.68	unnamed	Samish R	3	Skagit	No
NW	995390	SR 9	64.93	unnamed	Samish R	3	Skagit	No
NW	991136	SR 9	65.07	unnamed	Samish R	3	Skagit	No
NW	991116	SR 9	65.32	unnamed	Samish R	3	Skagit	Yes
NW	991446	SR 9	66.51	unnamed	Samish R	3	Skagit	No
NW	991447	SR 9	66.85	unnamed	Samish R	3	Whatcom	Yes
NW	995392	SR 9	67.46	unnamed	Samish R	3	Whatcom	No
NW	995395	SR 9	69.1	unnamed	Samish R	3	Whatcom	No
NW	995396	SR 9	69.15	unnamed	Samish R	3	Whatcom	No
NW	930834	SR 9	69.87	unnamed	Samish R	3	Whatcom	Yes
NW	995398	SR 9	69.88	unnamed	Samish R	3	Whatcom	Yes
NW	991106	SR 9	70.6	unnamed	Landingstrip Cr	3	Whatcom	Yes
NW	995780	SR 9	70.81	unnamed	SF Nooksack R	1	Whatcom	No
NW	995783	SR 9	71.54	unnamed	SF Nooksack R	1	Whatcom	No
NW	992344	SR 9	76.95	unnamed	Black Sl	1	Whatcom	Yes
NW	992345	SR 9	77.12	unnamed	Black Sl	1	Whatcom	Yes
NW	992349	SR 9	77.36	unnamed	Tawes Cr	1	Whatcom	Yes
NW	992350	SR 9	77.43	unnamed	Tawes Cr	1	Whatcom	Yes
NW	992356	SR 9	77.94	Tawes Cr	SF Nooksack R	1	Whatcom	Yes
NW	995790	SR 11	8.66	unnamed	Samish Bay	1	Skagit	Yes
NW	995796	SR 11	18.47	unnamed	Chuckanut Cr	1	Whatcom	Yes
NW	990581	SR 11	18.65	unnamed	Chuckanut Cr	1	Whatcom	Yes
NW	994386	SR 11	21.08	Padden Cr	Bellingham Bay	1	Whatcom	Yes
NW	996277	SR 18	0.29	unnamed	EF Hylebos Cr	10	King	Yes
NW	995298	SR 18	0.54	unnamed	EF Hylebos Cr	10	King	Yes
NW	997660	SR 18	7.51	unnamed	Big Soos Cr	9	King	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	997661	SR 18	8	unnamed	Soosette Cr	9	King	Yes
NW	995474	SR 18	21.03	unnamed	Holder Cr	8	King	Yes
NW	990173	SR 18	22.08	Holder Cr	Issaquah Cr	8	King	Yes
NW	995970	SR 18	22.55	unnamed	unnamed Holder Cr trib	8	King	No
NW	995971	SR 18	22.75	unnamed	Holder Cr	8	King	Yes
NW	995972	SR 18	22.95	unnamed	Holder Cr	8	King	Yes
NW	995973	SR 18	23.45	unnamed	Holder Cr	8	King	Yes
NW	995974	SR 18	23.56	unnamed	unnamed Holder Cr trib	8	King	Yes
NW	994859	SR 18	23.66	unnamed	Deep Cr	7	King	Yes
NW	934791	SR 18	25.67	unnamed	Deep Cr	7	King	Yes
NW	07.0396 0.80	SR 18	25.7	Deep Cr	Raging R	7	King	Yes
NW	990236	SR 18	27.57	Lake Cr	Raging R	7	King	Yes
NW	996319	SR 20; ROW	46.01	unnamed	Campbell Lk	3	Skagit	Yes
NW	996320	SR 20	46.1	unnamed	Campbell Lk	3	Skagit	Yes
NW	995423	SR 20	48.08	unnamed	Fidalgo Bay	3	Skagit	Yes
NW	995424	SR 20	48.12	unnamed	Fidalgo Bay	3	Skagit	Yes
NW	995425	SR 20	48.17	unnamed	Fidalgo Bay	3	Skagit	Yes
NW	SF49	SR 20	61.26	Gages Sl	Skagit R	3	Skagit	Yes
NW	991142	SR 20	69.08	unnamed	Red Cr	3	Skagit	Yes
NW	991547	SR 20	70.24	unnamed	Coal Cr	3	Skagit	Yes
NW	991146	SR 20	72.85	Childs Cr	Skagit R	3	Skagit	Yes
NW	995436	SR 20	78.01	unnamed	Carey's Lk	3	Skagit	No
NW	991123	SR 20	80.1	unnamed	Skagit R	3	Skagit	Yes
NW	991445	SR 20	85.63	unnamed	unnamed	4	Skagit	Yes
NW	997396	SR 20	85.94	unnamed	House Cr	4	Skagit	Yes
NW	997398	SR 20	86.86	unnamed	Skagit R	4	Skagit	Yes
NW	GR54	SR 20	87.01	Eagle Cr	Skagit R	4	Skagit	Yes
NW	991150	SR 20	87.2	Eagle Cr	Skagit R	4	Skagit	Yes
NW	991151	SR 20	87.31	Eagle Cr	Skagit R	4	Skagit	Yes
NW	GR9	SR 20	87.7	Fish Cr	Lorenzan Cr	4	Skagit	Yes
NW	GR23	SR 20	88.83	Lorenzan Cr	Skagit R	4	Skagit	Yes
NW	JK2	SR 20	91.3	unnamed	Skagit R	4	Skagit	Yes
NW	991707	SR 20	93.21	unnamed	Skagit R	4	Skagit	No
NW	991709	SR 20	93.7	unnamed	Skagit R	4	Skagit	No
NW	991710	SR 20	93.84	unnamed	Skagit R	4	Skagit	Yes
NW	994308	SR 20	94.47	unnamed	Skagit R	4	Skagit	Yes
NW	991125	SR 20	94.68	unnamed	Skagit R	4	Skagit	No

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	991126	SR 20	94.82	unnamed	Skagit R	4	Skagit	Yes
NW	990410	SR 20	99.95	Sutter Cr	Skagit R	4	Skagit	Yes
NW	995097	SR 20	105.34	Backus Cr	Skagit R	4	Skagit	No
NW	CD18	SR 20	105.42	Olson Cr	Skagit R	4	Skagit	Yes
NW	994941	SR 20	111.64	unnamed	Skagit R	4	Skagit	Yes
NW	991131	SR 20	112.9	unnamed	Skagit R	4	Skagit	Yes
NW	994947	SR 20	114.71	unnamed	Skagit R	4	Skagit	No
NW	DM7	SR 20	116.25	unnamed	Skagit R	4	Skagit	Yes
NW	991452	SR 20	118.41	Babcock Cr	Skagit R	4	Whatcom	No
NW	995430	SR 20; SPUR	50.48	unnamed	Fidalgo Bay	3	Skagit	Yes
NW	933175	SR 20 Spur	53.53	unnamed	Guemes Channel	3	Skagit	Yes
NW	992641	SR 92	0.22	unnamed	Stevens Cr	7	Snohomish	Yes
NW	991827	SR 92	0.78	Lundeen Cr	Lake Stevens	7	Snohomish	Yes
NW	991830	SR 92	2.2	unnamed	Catherine Cr	7	Snohomish	No
NW	991831	SR 92	2.99	unnamed	Little Pilchuck Cr	7	Snohomish	Yes
NW	102 N183	SR 96	0.47	North Cr	Sammamish R	8	Snohomish	Yes
NW	995326	SR 96	5.29	Thomas Cr	Marshall Sl	7	Snohomish	Yes
NW	995214	SR 96	5.86	unnamed	unnamed to Snohomish R	7	Snohomish	Yes
NW	995215	SR 96	5.98	unnamed	unnamed to Snohomish R	7	Snohomish	Yes
NW	995216	SR 96	6.09	unnamed	Snohomish R	7	Snohomish	Yes
NW	995217	SR 96	6.49	unnamed	Marshall Sl	7	Snohomish	Yes
NW	991196	SR 99	13.54	McSorley Cr	Puget Sound	9	King	Yes
NW	997684	SR 99	23.41	unnamed	Duwamish R	9	King	Yes
NW	997685	SR 99	24.71	NF Hamm Cr	Duwamish R	9	King	Yes
NW	997687	SR 99	24.86	NF Hamm Cr	Duwamish R	9	King	Yes
NW	993095	SR 99	47.66	Scriber Cr	Swamp Cr	8	Snohomish	Yes
NW	996216	SR 99	49.01	unnamed	Scriber Cr	8	Snohomish	Yes
NW	993849	SR 99	51.45	unnamed	Swamp Cr	8	Snohomish	Yes
NW	102 N192	SR 99	54.23	North Cr	Sammamish R	8	Snohomish	Yes
NW	990111	SR 104	25.52	Willow Cr	Shelleberger Cr	8	Snohomish	Yes
NW	996208	SR 104	29.23	unnamed	Lake Ballinger	8	Snohomish	No
NW	990653	SR 104	30.67	unnamed	Lyon Cr	8	King	Yes
NW	990253	SR 104	31.23	Lyon Cr	Lake Washington	8	King	Yes
NW	991623	SR 104	31.73	unnamed	Lyon Cr	8	King	Yes
NW	105 S011918a	SR 161	34.03	unnamed	Hylebos Cr	10	King	Yes
NW	997974	SR 161	34.14	unnamed	unnamed Hylebos Cr trib	10	King	Yes
NW	992062	SR 161	34.71	unnamed	Hylebos Cr	10	King	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	992064	SR 161	35.01	unnamed	EF Hylebos Cr	10	King	Yes
NW	992360	SR 164	5.89	unnamed	White R	10	King	Yes
NW	996279	SR 164	7.01	unnamed	White R	10	King	No
NW	105 R042117a	SR 164	8.24	Pussyfoot Cr	White R	10	King	Yes
NW	991213	SR 164	9.06	Seconds Cr	White R	10	King	Yes
NW	996281	SR 164	10.65	unnamed	unnamed	10	King	No
NW	991839	SR 164	13.34	unnamed	Newaukum Cr	9	King	Yes
NW	991198	SR 167	21.17	Mill Cr	Springbrook Cr	9	King	Yes
NW	995469	SR 167	22.63	unnamed	Springbrook Cr	9	King	No
NW	991681	SR 167	23.84	unnamed	Springbrook Cr	9	King	Yes
NW	933530	SR 167	23.93	unnamed	unnamed Springbrook Cr trib	9	King	Yes
NW	991200	SR 167	24.16	unnamed	Springbrook Cr	9	King	No
NW	991202	SR 167	25.94	Rolling Hills Cr	Springbrook Cr	9	King	Yes
NW	997691	SR 169	7.15	Rock Cr	Covington Cr	9	King	Yes
NW	997692	SR 169	7.24	unnamed	Jones Lk	9	King	Yes
NW	997693	SR 169	8.27	unnamed	Ginder Cr	9	King	Yes
NW	997694	SR 169	8.29	Ginder Cr	Rock Cr	9	King	Yes
NW	997695	SR 169	9.95	Ravensdale Cr	Lake Sawyer	9	King	Yes
NW	996492	SR 169	17.92	unnamed	Cedar R	8	King	Yes
NW	996493	SR 169	18.06	unnamed	Cedar R	8	King	No
NW	996514	SR 169; ROW	18.06	unnamed	Cedar R	8	King	No
NW	996494	SR 169	18.48	unnamed	Cedar R	8	King	Yes
NW	996500	SR 169	19.82	unnamed	Cedar R	8	King	No
NW	996917	SR 202	0.97	unnamed	Sammamish R	8	King	No
NW	996930	SR 202; ROW	1.03	unnamed	Sammamish R	8	King	No
NW	996921	SR 202	4.17	unnamed	Sammamish R	8	King	Yes
NW	996925	SR 202	4.25	unnamed	High School Cr	8	King	Yes
NW	991181	SR 202	5.27	unnamed	Sammamish R	8	King	No
NW	990142	SR 202	11.96	Evans Cr	Bear Cr	8	King	Yes
NW	990325	SR 202	13.22	Patterson Cr	Snoqualmie R	7	King	Yes
NW	995194	SR 202	16.79	unnamed	Patterson Cr	7	King	Yes
NW	991174	SR 202	19.69	unnamed	Patterson Cr	7	King	Yes
NW	991173	SR 202	19.76	unnamed	Patterson Cr	7	King	Yes
NW	101S-22	SR 202	22.56	unnamed	Snoqualmie R	7	King	Yes
NW	101SA-06	SR 202	23.18	Skunk Cr	Snoqualmie R	7	King	Yes
NW	995200	SR 202	23.22	unnamed	Skunk Cr	7	King	Yes
NW	101S-10	SR 202	23.45	Mud Cr	Snoqualmie R	7	King	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	101L-01	SR 203	3.97	unnamed	Griffin Cr	7	King	No
NW	991720	SR 203	4.37	unnamed	Snoqualmie R	7	King	Yes
NW	991721	SR 203	4.91	Indian Cr	Langlois Cr	7	King	Yes
NW	995167	SR 203	7.26	unnamed	Horseshoe Lk	7	King	Yes
NW	995178	SR 203	11.61	unnamed	unnamed	7	King	Yes
NW	991716	SR 203	13.6	Loutsis Cr	Snoqualmie R	7	King	Yes
NW	995184	SR 203	18.19	unnamed	Snoqualmie R	7	Snohomish	No
NW	995186	SR 203	18.48	unnamed	Snoqualmie R	7	Snohomish	No
NW	995137	SR 204	0.21	unnamed	unnamed to Ebey Sl	7	Snohomish	Yes
NW	995138	SR 204	0.54	unnamed	Ebey Sl	7	Snohomish	Yes
NW	995141	SR 204	0.96	unnamed	Ebey Sl	7	Snohomish	Yes
NW	995150	SR 204	1.19	Burri Cr	Ebey Sl	7	Snohomish	Yes
NW	995152	SR 204	1.8	Weiser Cr	Ebey Sl	7	Snohomish	Yes
NW	991204	SR 410	22.67	unnamed	Boise Cr	10	King	Yes
NW	991206	SR 410	22.94	unnamed	Boise Cr	10	King	Yes
NW	990474	SR 410	25.17	Watercress Cr	Newaukum Cr	9	King	Yes
NW	996622	SR 410	31.48	unnamed	Scatter Cr	10	King	Yes
NW	990082	SR 410	35.77	Clay Cr	White R	10	King	Yes
NW	991219	SR 410	39.18	unnamed	White R	10	King	No
NW	105 R022221a	SR 410	41.42	unnamed	White R	10	King	Yes
NW	105 R071916a	SR 410	48.29	Boundary Cr	White R	10	Pierce	Yes
NW	996671	SR 410	53.01	unnamed	White R	10	Pierce	Yes
NW	105 R072018a	SR 410	59.57	unnamed	White R	10	Pierce	No
NW	996266	SR 509	9.18	unnamed	Puget Sound	10	King	Yes
NW	991651	SR 509	9.6	unnamed	Puget Sound	10	King	No
NW	996270	SR 509	10.96	Lakota Cr	Puget Sound	10	King	Yes
NW	996272	SR 509	11.43	unnamed	Lakota Cr	10	King	Yes
NW	991192	SR 509	13.49	unnamed	Puget Sound	9	King	Yes
NW	997675	SR 509; SR 99	14.2	Redondo Cr	Poverty Bay	9	King	Yes
NW	997679	SR 509	24.42	Miller Cr	Puget Sound	9	King	Yes
NW	997681	SR 509	29.15	Lost Fork Hamm Cr	Duwamish R	9	King	No
NW	997645	SR 515	3.97	Panther Cr	Springbrook Cr	9	King	Yes
NW	994409	SR 515	7.08	Rolling Hills Cr	Springbrook Cr	9	King	Yes
NW	991191	SR 516	0.43	Barnes Cr	Massey Cr	9	King	Yes
NW	997649	SR 516	2.98	unnamed	Green R	9	King	Yes
NW	997651	SR 516	5.8	Mill Cr	Springbrook Cr	9	King	Yes
NW	998886	SR 518	2.82	Gilliam Cr	Green R	9	King	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	992651	SR 518	3	unnamed	Gilliam Cr	9	King	No
NW	997697	SR 518	3.57	unnamed	unnamed	9	King	No
NW	994117	SR 520	5.42	unnamed	Lake Washington	8	King	No
NW	990167	SR 520	7.9	Goff Cr	WF Kelsey Cr	8	King	Yes
NW	990430	SR 522	2.86	Thornton Cr	Lake Washington	8	King	Yes
NW	990655	SR 522	6.63	Cat Whisker Cr	Lake Washington	8	King	Yes
NW	993083	SR 522	11.26	Par Cr	Sammamish R	8	King	Yes
NW	996916	SR 522	12.86	unnamed	Little Bear Cr	8	King	Yes
NW	996880	SR 522; ROW	12.86	unnamed	Little Bear Cr	8	King	Yes
NW	996913	SR 522	13.66	unnamed	Little Bear Cr	8	Snohomish	Yes
NW	994430	SR 522	14.25	Howell Cr	Little Bear Cr	8	Snohomish	Yes
NW	994432	SR 522	14.38	unnamed	Howell Cr	8	Snohomish	No
NW	994440	SR 522	16.57	Daniels Cr	Cottage Lake Cr	8	Snohomish	Yes
NW	992371	SR 522	17.48	unnamed	Evans Cr	7	Snohomish	Yes
NW	992632	SR 522	17.82	unnamed	Evans Cr	7	Snohomish	Yes
NW	992631	SR 522	17.87	unnamed	Evans Cr	7	Snohomish	Yes
NW	934276	SR 522	18.77	unnamed	unnamed Evans Cr trib	7	Snohomish	Yes
NW	992378	SR 522	19.28	Anderson Cr	Evans Cr	7	Snohomish	Yes
NW	992381	SR 522	19.35	unnamed	Anderson Cr	7	Snohomish	Yes
NW	990139	SR 522	20.19	Elliott Cr	Snohomish R	7	Snohomish	Yes
NW	931850	SR 522	21.82	unnamed	unnamed	7	Snohomish	No
NW	993103	SR 524	3.89	Scriber Cr	Swamp Cr	8	Snohomish	Yes
NW	992846	SR 524	5.54	Golde Cr	Scriber Cr	8	Snohomish	Yes
NW	993100	SR 524	6.95	Martha Cr	Swamp Cr	8	Snohomish	Yes
NW	991053	SR 524	8.06	unnamed	North Cr	8	Snohomish	No
NW	996460	SR 524	14.28	Daniels Cr	Cottage Lk Cr	8	Snohomish	Yes
NW	994124	SR 524	14.4	Daniels Cr	Cottage Lk Cr	8	Snohomish	Yes
NW	994123	SR 524	14.52	Daniels Cr	Cottage Lk Cr	8	Snohomish	Yes
NW	996205	SR 524; SPUR	0.21	Shelleberger Cr	Puget Sound	8	Snohomish	Yes
NW	102 S088	SR 525	0.28	Maple Cr	Swamp Cr	8	Snohomish	Yes
NW	991176	SR 525	1.1	Box Springs Cr	Swamp Cr	8	Snohomish	Yes
NW	991054	SR 525	2.05	unnamed	Swamp Cr	8	Snohomish	Yes
NW	996203	SR 525	7.56	unnamed	Possession Bay	8	Snohomish	No
NW	995994	SR 525	9.14	Clinton Cr	Puget Sound	6	Island	Yes
NW	995986	SR 525	9.54	Clinton Cr	Puget Sound	6	Island	Yes
NW	995984	SR 525	9.7	Clinton Cr	Puget Sound	6	Island	Yes
NW	995992	SR 525	11.99	Maxwellton Cr	Useless Bay	6	Island	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	991805	SR 525	15.03	unnamed	Deer Lagoon	6	Island	Yes
NW	995126	SR 526	0.77	Japanese Gulch Cr	Possession Sound	7	Snohomish	Yes
NW	993084	SR 527	2.76	Queensborough Cr	North Cr	8	Snohomish	Yes
NW	08.0077 0.20	SR 527	6.55	Penny Cr	North Cr	8	Snohomish	Yes
NW	990294	SR 528	2.51	Munson Cr	Allen Cr	7	Snohomish	Yes
NW	934372	SR 529 SB	6	unnamed	Steamboat Sl	7	Snohomish	No
NW	991159	SR 530	24.65	Trafton Cr	NF Stillaguamish R	5	Snohomish	Yes
NW	990629	SR 530	25.74	unnamed	Schoolyard Cr	5	Snohomish	Yes
NW	996092	SR 530	25.88	unnamed	Schoolyard Cr	5	Snohomish	No
NW	991160	SR 530	25.94	Schoolyard Cr	NF Stillaguamish R	5	Snohomish	Yes
NW	990628	SR 530	26.29	unnamed	Schoolyard	5	Snohomish	Yes
NW	991161	SR 530	26.4	unnamed	unnamed	5	Snohomish	No
NW	990632	SR 530	26.68	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	990633	SR 530	26.87	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	990630	SR 530	27.46	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	990634	SR 530	27.66	unnamed	NF Stillaguamish R	5	Snohomish	No
NW	990361	SR 530	27.75	Ryan Falls Cr	Stillaguamish R	5	Snohomish	No
NW	990638	SR 530	30.67	unnamed	McGovern Cr	5	Snohomish	No
NW	990644	SR 530	31.01	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	991164	SR 530	32.51	unnamed	NF Stillaguamish R	5	Snohomish	No
NW	990639	SR 530	34.3	unnamed	NF Stillaguamish R	5	Snohomish	No
NW	990646	SR 530	34.7	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	996100	SR 530	35.06	unnamed	NF Stillaguamish R	5	Snohomish	No
NW	990640	SR 530	35.24	unnamed	Montague Cr	5	Snohomish	Yes
NW	995402	SR 530	36.67	unnamed	NF Stillaguamish R	5	Snohomish	No
NW	990649	SR 530	38.53	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	990650	SR 530	38.6	unnamed	NF Stillaguamish R	5	Snohomish	No
NW	990246	SR 530	42.14	Little French Cr	NF Stillaguamish R	5	Snohomish	Yes
NW	990652	SR 530	43.34	unnamed	NF Stillaguamish R	5	Snohomish	Yes
NW	997712	SR 530	64.41	unnamed	Hilt Cr	4	Skagit	No
NW	990885	SR 530	66.5	unnamed	Skagit R	4	Skagit	Yes
NW	991750	SR 531	2.61	Fish Cr	Portage Cr	5	Snohomish	Yes
NW	991057	SR 531	8.37	unnamed	MF Quilceda Cr	7	Snohomish	No
NW	990080	SR 532	6.68	unnamed	Church Cr	5	Snohomish	Yes
NW	990890	SR 532	8.71	Jackson Gulch Cr	Stillaguamish R	5	Snohomish	Yes
NW	CR2	SR 534	0.53	unnamed	Carpenter Cr	3	Skagit	Yes
NW	995265	SR 534	0.6	unnamed	Carpenter Cr	3	Skagit	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	PA2	SR 536	2.07	unnamed	unnamed Higgins Sl trib	3	Skagit	No
NW	NC129	SR 538	2.18	Logan Cr	Nookachamps Cr	3	Skagit	Yes
NW	992987	SR 539	0.04	Baker Cr	Squalicum Cr	1	Whatcom	Yes
NW	990015	SR 539	0.3	Spring Cr	Baker Cr	1	Whatcom	Yes
NW	991973	SR 539	0.3	unnamed	Spring Cr	1	Whatcom	Yes
NW	991473	SR 539	11.1	Duffner Ditch	Bertrand Cr	1	Whatcom	Yes
NW	991803	SR 542	2.4	Toad Lk Cr	Squalicum Cr	1	Whatcom	Yes
NW	990014	SR 542	3.45	Squalicum Cr	Bellingham Bay	1	Whatcom	Yes
NW	991111	SR 542	13.47	unnamed	Mitchell Cr	1	Whatcom	Yes
NW	990584	SR 542	15.05	unnamed	Jim Cr	1	Whatcom	Yes
NW	990585	SR 542	15.08	unnamed	Jim Cr	1	Whatcom	Yes
NW	990588	SR 542	15.97	unnamed	NF Nooksack R	1	Whatcom	Yes
NW	995776	SR 542	16.21	unnamed	unnamed	1	Whatcom	No
NW	991107	SR 542	16.28	unnamed	Nooksack R	1	Whatcom	No
NW	995777	SR 542	17.37	unnamed	NF Nooksack R	1	Whatcom	Yes
NW	990589	SR 542	17.85	unnamed	NF Nooksack R	1	Whatcom	No
NW	991112	SR 542	19.6	unnamed	NF Nooksack R	1	Whatcom	Yes
NW	991704	SR 542	20.1	unnamed	NF Nooksack R	1	Whatcom	No
NW	991705	SR 542	21.45	unnamed	Kendall Cr	1	Whatcom	Yes
NW	991113	SR 542	23.95	unnamed	High Cr	1	Whatcom	Yes
NW	995770	SR 542	24.25	unnamed	High Cr	1	Whatcom	Yes
NW	990577	SR 542	24.49	unnamed	High Cr	1	Whatcom	Yes
NW	990590	SR 542	26.25	unnamed	NF Nooksack R	1	Whatcom	No
NW	991640	SR 542	27.2	unnamed	Nooksack R	1	Whatcom	Yes
NW	995409	SR 542	28.87	unnamed	NF Nooksack R	1	Whatcom	Yes
NW	990580	SR 542	29.02	unnamed	NF Nooksack R	1	Whatcom	No
NW	990598	SR 542	31.57	unnamed	NF Nooksack R	1	Whatcom	Yes
NW	990600	SR 542	32.08	unnamed	Hedrick Cr	1	Whatcom	Yes
NW	990602	SR 542	34.49	unnamed	NF Nooksack R	1	Whatcom	Yes
NW	990604	SR 542	38.15	Deerhorn Cr	NF Nooksack R	1	Whatcom	No
NW	930309	SR 543	0.12	Cain Cr	Semiahmoo Bay	1	Whatcom	Yes
NW	996168	SR 544	3.51	unnamed	Four Mile Cr	1	Whatcom	Yes
NW	931144	SR 546	0.17	Duffner Ditch	Bertrand Cr	1	Whatcom	Yes
NW	990510	SR 546	0.46	Double Ditch	Fishtrap Cr	1	Whatcom	Yes
NW	996161	SR 546	0.47	Double Ditch	Fishtrap Cr	1	Whatcom	Yes
NW	996163	SR 546	1.47	unnamed	Fishtrap Cr	1	Whatcom	Yes
NW	996164	SR 546	2.01	unnamed	Fishtrap Cr	1	Whatcom	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
NW	990223	SR 546	4.21	Kamm Ditch	Nooksack R	1	Whatcom	Yes
NW	996167	SR 546	6.02	unnamed	Squaw Cr	1	Whatcom	Yes
NW	995774	SR 547	6.71	unnamed	Saar Cr	1	Whatcom	Yes
NW	996003	SR 548	0.29	unnamed	California Cr	1	Whatcom	Yes
NW	996006	SR 548	0.87	unnamed	California Cr	1	Whatcom	Yes
NW	996007	SR 548	1.14	unnamed	unnamed California Cr trib	1	Whatcom	Yes
NW	996008	SR 548	1.24	unnamed	California Cr	1	Whatcom	Yes
NW	996142	SR 548	4.27	unnamed	Fingalson Cr	1	Whatcom	No
NW	996148	SR 548	6.76	unnamed	Terrell Cr	1	Whatcom	Yes
NW	996149	SR 548	8.11	unnamed	Terrell Cr	1	Whatcom	Yes
NW	996153	SR 548	10.55	unnamed	California Cr	1	Whatcom	Yes
NW	996156	SR 548	13.8	Cain Cr	Semiahmoo Bay	1	Whatcom	Yes
NW	991702	SR 900	18.59	May Cr	Lake Washington	8	King	Yes
NW	990432	SR 900	19.14	unnamed	Tibbetts Cr	8	King	No
NW	991185	SR 900	19.4	unnamed	Tibbetts Cr	8	King	No
NW	990433	SR 900	19.5	Tibbetts Cr	Lake Sammamish	8	King	Yes
NW	932426	US 2; WB on-ramp	5.02	Bunk Foss Cr	Pilchuck R	7	Snohomish	Yes
NW	932428	US 2	5.18	Bunk Foss Cr	Pilchuck R	7	Snohomish	Yes
NW	995101	US 2	6.23	Bunk Foss Cr	Pilchuck R	7	Snohomish	Yes
NW	995108	US 2	12.94	unnamed	French Cr	7	Snohomish	Yes
NW	101NORT-01	US 2	15.74	unnamed	Skykomish R	7	Snohomish	Yes
NW	101NORT-32	US 2	20.48	unnamed	unnamed to Skykomish R	7	Snohomish	Yes
NW	101NORT-33	US 2	20.53	unnamed	Skykomish R	7	Snohomish	Yes
NW	101OWEN-02	US 2	21.74	Groeneveld Cr	Skykomish R	7	Snohomish	Yes
NW	991822	US 2	34.36	unnamed	Skykomish R	7	Snohomish	Yes
NW	991825	US 2	36.73	unnamed	SF Skykomish R	7	Snohomish	No
NW	995000	US 2	45.47	unnamed	SF Skykomish R	7	King	Yes
NW	995002	US 2	48.78	unnamed	SF Skykomish R	7	King	No
NW	934093	US 2; ROW	48.82	unnamed	SF Skykomish R	7	King	No
NW	995020	US 2	48.94	unnamed	SF Skykomish R	7	King	Yes
NW	995021	US 2	49.87	unnamed	SF Skykomish R	7	King	Yes
NW	995062	US 2	52.39	unnamed	Tye R	7	King	Yes
NW	995023	US 2	52.7	unnamed	Tye R	7	King	Yes
OL	991040	I-5	86.2	unnamed	Chehalis R	23	Thurston	Yes
OL	991499	I-5	94.57	unnamed	Beaver Cr	23	Thurston	Yes
OL	991659	I-5	98.11	unnamed	Salmon Cr	23	Thurston	Yes
OL	997706	I-5	104.13	unnamed	Deschutes R	13	Thurston	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	990292	I-5	105.52	Moxlie Cr	Budd Inlet	13	Thurston	Yes
OL	990199	I-5	105.85	Indian Cr	Moxlie Cr	13	Thurston	Yes
OL	998888	I-5	109.19	College Cr	Woodland Cr	13	Thurston	No
OL	997705	I-5	109.62	College Cr	Woodland Cr	13	Thurston	Yes
OL	933313	I-5; NB	115.77	unnamed	unnamed Red Salmon Cr trib	11	Pierce	No
OL	933186	I-5	134.33	unnamed	Puyallup R	10	Pierce	No
OL	997231	SR 3	2.11	unnamed	Goldsburrough Cr	14	Mason	No
OL	997235	SR 3	4.67	unnamed	Oakland Bay	14	Mason	Yes
OL	997365	SR 3	7.16	unnamed	Oakland Bay	14	Mason	Yes
OL	997368	SR 3	7.59	unnamed	Oakland Bay	14	Mason	Yes
OL	997369	SR 3	7.96	unnamed	Oakland Bay	14	Mason	No
OL	997371	SR 3	8.28	unnamed	Oakland Bay	14	Mason	Yes
OL	991987	SR 3	21.29	unnamed	Case Inlet	14	Mason	No
OL	991795	SR 3	23.94	unnamed	Devereaux Cr	14	Mason	Yes
OL	996734	SR 3	25.15	unnamed	Hood Canal	15	Mason	Yes
OL	991797	SR 3	25.31	Sweetwater Cr	Hood Canal	15	Mason	Yes
OL	999626	SR 3	26.26	Mindy Cr	Union R	15	Mason	Yes
OL	991991	SR 3	26.4	unnamed	Union R	15	Mason	Yes
OL	991728	SR 3	29.63	unnamed	Union R	15	Kitsap	Yes
OL	996508	SR 3	31.36	Ostrich Cr	Ostrich Bay	15	Kitsap	Yes
OL	990168	SR 3	32.1	Gorst Cr	Sinclair Inlet	15	Kitsap	Yes
OL	991585	SR 3	34.27	unnamed	Gorst Cr	15	Kitsap	Yes
OL	991995	SR 3	36.1	Wright Cr	Sinclair Inlet	15	Kitsap	Yes
OL	991994	SR 3	36.51	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	996798	SR 3; SB on-ramp	39.13	unnamed	Dyes Inlet	15	Kitsap	Yes
OL	996796	SR 3	39.45	unnamed	Dyes Inlet	15	Kitsap	No
OL	996741	SR 3	40.37	unnamed	Dyes Inlet	15	Kitsap	Yes
OL	15.0229 0.10	SR 3	40.96	Chico Cr	Dyes Inlet	15	Kitsap	Yes
OL	991907	SR 3; Access Rd	40.97	unnamed	Chico Cr	15	Kitsap	Yes
OL	996795	SR 3; SB on-ramp	40.99	unnamed	Chico Cr	15	Kitsap	Yes
OL	996794	SR 3; SB off-ramp	41.08	unnamed	Chico Cr	15	Kitsap	Yes
OL	996742	SR 3	41.52	unnamed	Dyes Inlet	15	Kitsap	Yes
OL	996745	SR 3	41.81	unnamed	Dyes Inlet	15	Kitsap	Yes
OL	996747	SR 3	42.21	unnamed	Dyes Inlet	15	Kitsap	Yes
OL	996748	SR 3	42.56	unnamed	Dyes Inlet	15	Kitsap	Yes
OL	996856	SR 3	43.58	Koch Cr	Dyes Inlet	15	Kitsap	No
OL	990708	SR 3	44.62	unnamed	Strawberry Cr	15	Kitsap	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	15.0246 0.96	SR 3	44.8	Strawberry Cr	Dyes Inlet	15	Kitsap	Yes
OL	993013	SR 3	46.09	unnamed	WF Clear Cr	15	Kitsap	Yes
OL	996801	SR 3	46.82	unnamed	Clear Cr	15	Kitsap	Yes
OL	996803	SR 3	47.72	unnamed	Clear Cr	15	Kitsap	Yes
OL	996804	SR 3	49.48	Big Scandia Cr	Liberty Bay	15	Kitsap	Yes
OL	991241	SR 3	50.85	SF Johnson Cr	Johnson Cr	15	Kitsap	Yes
OL	990218	SR 3	50.94	MF Johnson Cr	Liberty Bay	15	Kitsap	Yes
OL	991744	SR 3	52.21	Johnson Cr	Liberty Bay	15	Kitsap	Yes
OL	991242	SR 3	57.23	unnamed	Kinman Cr	15	Kitsap	Yes
OL	991613	SR 3	57.87	unnamed	Hood Canal	15	Kitsap	Yes
OL	991240	SR 3	58.21	unnamed	Hood Canal	15	Kitsap	Yes
OL	990395	SR 3	58.49	Spring Cr	Hood Canal	15	Kitsap	Yes
OL	991612	SR 3	59.52	unnamed	Hood Canal	15	Kitsap	Yes
OL	996811	SR 3	59.55	unnamed	unnamed	15	Kitsap	Yes
OL	997623	SR 7	28.02	unnamed	Mashel R	11	Pierce	No
OL	990686	SR 7	32.4	unnamed	Silver Lk	11	Pierce	Yes
OL	997628	SR 7	33.52	unnamed	Cranberry Lk	11	Pierce	No
OL	991225	SR 7	37.5	unnamed	South Cr	11	Pierce	Yes
OL	990688	SR 7	38.12	unnamed	South Cr	11	Pierce	Yes
OL	996274	SR 7	58.34	unnamed	Commencement Bay	10	Pierce	Yes
OL	991063	SR 8	0.1	unnamed	Cloquallum Cr	22	Grays Harbor	Yes
OL	993722	SR 8	1.02	unnamed	Cloquallum Cr	22	Grays Harbor	No
OL	993723	SR 8	1.27	unnamed	Cloquallum Cr	22	Grays Harbor	Yes
OL	993727	SR 8	1.37	unnamed	unnamed to Cloquallum Cr	22	Grays Harbor	No
OL	993724	SR 8	3.16	unnamed	Wildcat Cr	22	Grays Harbor	Yes
OL	993725	SR 8	3.51	unnamed	Wildcat Cr	22	Grays Harbor	Yes
OL	991066	SR 8	3.72	unnamed pond	Wildcat Cr	22	Grays Harbor	Yes
OL	990770	SR 8	6.15	unnamed	EF Wildcat Cr	22	Grays Harbor	Yes
OL	990773	SR 8	9.1	unnamed	Mox Chehalis Cr	22	Grays Harbor	Yes
OL	993728	SR 8	10.12	unnamed	Mox Chehalis Cr	22	Grays Harbor	Yes
OL	993729	SR 8	10.12	unnamed	Mox Chehalis Cr	22	Grays Harbor	Yes
OL	991939	SR 16	14.63	unnamed	McCormick Cr	15	Pierce	Yes
OL	991940	SR 16	14.65	McCormick Cr	Henderson Bay	15	Pierce	Yes
OL	991941	SR 16	14.86	McCormick Cr	Henderson Bay	15	Pierce	Yes
OL	991942	SR 16	15.02	unnamed	McCormick Cr	15	Pierce	Yes
OL	991944	SR 16; EB Ext 15	15.21	McCormick Cr	Henderson Bay	15	Pierce	Yes
OL	105 K051618a	SR 16	16.59	Goodnough Cr	Henderson Bay	15	Pierce	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	15.0060	SR 16	17.8	Purdy Cr	Burley Lagoon	15	Pierce	Yes
OL	996760	SR 16	19.28	unnamed	Burley Cr	15	Kitsap	No
OL	991866	SR 16	19.54	unnamed	Burley Cr	15	Kitsap	Yes
OL	991516	SR 16	20.36	unnamed	Burley Cr	15	Kitsap	Yes
OL	991867	SR 16	20.44	unnamed	Burley Cr	15	Kitsap	Yes
OL	996752	SR 16	21.58	unnamed	Burley Cr	15	Kitsap	Yes
OL	15.0056	SR 16	22.7	Burley Cr	Henderson Bay	15	Kitsap	Yes
OL	996755	SR 16; EB on-ramp	25.24	Blackjack Cr	Sinclair Inlet	15	Kitsap	Yes
OL	990038	SR 16	25.3	Blackjack Cr	Sinclair Inlet	15	Kitsap	Yes
OL	996756	SR 16; WB off-ramp	25.3	Blackjack Cr	Sinclair Inlet	15	Kitsap	Yes
OL	996754	SR 16; EB Ext	26.61	unnamed	Ross Cr	15	Kitsap	Yes
OL	990357	SR 16	26.8	Ross Cr	Sinclair Inlet	15	Kitsap	Yes
OL	990270	SR 16	27.1	unnamed	Ross Cr	15	Kitsap	Yes
OL	934154	SR 16	27.49	unnamed	Sinclair Inlet	15	Kitsap	No
OL	991670	SR 16	28.6	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	990711	SR 19	4.3	Swansonville Cr	EF Chimacum Cr	17	Jefferson	Yes
OL	991579	SR 19	6.82	unnamed	EF Chimacum Cr	17	Jefferson	Yes
OL	995743	SR 20	0.65	unnamed	Discovery Bay	17	Jefferson	Yes
OL	995748	SR 20	1.39	unnamed	Discovery Bay	17	Jefferson	No
OL	995753	SR 20	3.67	unnamed	Discovery Bay	17	Jefferson	Yes
OL	996275	SR 99	0.44	unnamed	Hylebos Cr	10	Pierce	Yes
OL	162173	SR 104	4.25	unnamed	Barnhouse Cr	17	Jefferson	Yes
OL	990375	SR 104	10.36	Shine Cr	Hood Canal	17	Jefferson	Yes
OL	162192	SR 104	12.57	unnamed	Squamish Harbor	17	Jefferson	Yes
OL	990710	SR 104	16.55	unnamed	Hood Canal	15	Kitsap	Yes
OL	992199	SR 104	17.67	Ladine DeCouteaux Cr	Port Gamble	15	Kitsap	Yes
OL	992200	SR 104	17.82	unnamed	Port Gamble	15	Kitsap	Yes
OL	992201	SR 104	19.12	unnamed	Port Gamble	15	Kitsap	Yes
OL	992202	SR 104	19.39	unnamed	Port Gamble	15	Kitsap	Yes
OL	996729	SR 104	22.23	unnamed	Grovers Cr	15	Kitsap	Yes
OL	992207	SR 104	22.95	Carpenter Cr	Appletree Cove	15	Kitsap	Yes
OL	992208	SR 104	23.37	unnamed	Appletree Cove	15	Kitsap	No
OL	991295	SR 105	31.11	unnamed	South Bay	22	Grays Harbor	Yes
OL	993007	SR 105	31.79	unnamed	South Bay	22	Grays Harbor	No
OL	990905	SR 105	36.26	unnamed	South Bay	22	Grays Harbor	No
OL	980275	SR 105	38.1	unnamed	Johns R	22	Grays Harbor	Yes
OL	980274	SR 105	38.28	unnamed	Johns R	22	Grays Harbor	No

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	991642	SR 105	39.77	unnamed	O'Leary Cr	22	Grays Harbor	Yes
OL	991298	SR 105	40.5	unnamed	South Bay	22	Grays Harbor	Yes
OL	991302	SR 105	41.76	unnamed	Grays Harbor	22	Grays Harbor	No
OL	991297	SR 105	44.56	unnamed	Grays Harbor	22	Grays Harbor	Yes
OL	996115	SR 106	2.07	unnamed	unnamed Skokomish R trib	16	Mason	Yes
OL	996127	SR 106	3.39	unnamed	Hood Canal	16	Mason	No
OL	996383	SR 106	4.11	unnamed	Hood Canal	16	Mason	Yes
OL	997163	SR 106	5.45	unnamed	Hood Canal	14	Mason	No
OL	997176	SR 106	9.7	unnamed	Hood Canal	14	Mason	No
OL	997182	SR 106	11.57	unnamed	Hood Canal	14	Mason	Yes
OL	990450	SR 106	12.3	Twanoh Cr	Hood Canal	14	Mason	Yes
OL	991245	SR 106	13.84	unnamed	Hood Canal	14	Mason	Yes
OL	997184	SR 106	14.61	unnamed	Hood Canal	14	Mason	Yes
OL	115 MC190	SR 106	14.72	Mulberg Cr	Hood Canal	14	Mason	Yes
OL	115 MC218	SR 106	19.57	Devereaux Cr	Hood Canal	14	Mason	Yes
OL	933360	SR 107	4.34	unnamed	Chehalis R	22	Grays Harbor	Yes
OL	933361	SR 107; ROW	4.34	unnamed	Chehalis R	22	Grays Harbor	Yes
OL	991727	SR 107	5.49	unnamed	Chehalis R	22	Grays Harbor	No
OL	993659	SR 108	0.18	unnamed	EF Wildcat Cr	22	Grays Harbor	No
OL	997210	SR 108	5.2	unnamed	unnamed	14	Mason	Yes
OL	991237	SR 108	5.5	unnamed	Skookum Cr	14	Mason	Yes
OL	990385	SR 108	5.54	unnamed	Skookum Cr	14	Mason	Yes
OL	991672	SR 108	7.62	unnamed	Skookum Cr	14	Mason	Yes
OL	990278	SR 108	8.89	McDonald Cr	Skookum Cr	14	Mason	Yes
OL	997224	SR 108	9.35	unnamed	Kamilche Cr	14	Mason	Yes
OL	997225	SR 108	9.47	Kamilche Cr	Skookum Cr	14	Mason	Yes
OL	990921	SR 109	2.71	unnamed	Grays Harbor	22	Grays Harbor	Yes
OL	991835	SR 109	3.41	unnamed	Grays Harbor	22	Grays Harbor	Yes
OL	991836	SR 109	4.46	unnamed	Little Hoquiam R	22	Grays Harbor	Yes
OL	990932	SR 109	6.91	unnamed	Grass Cr	22	Grays Harbor	Yes
OL	990933	SR 109	7.1	unnamed	Pacific Ocean	22	Grays Harbor	No
OL	990938	SR 109	9.77	unnamed	Gillis Sl	22	Grays Harbor	Yes
OL	990919	SR 109	17.81	unnamed	Connor Cr	21	Grays Harbor	Yes
OL	990920	SR 109	19.4	unnamed	Connor Cr	21	Grays Harbor	Yes
OL	997311	SR 109	21.12	unnamed	Copalis R	21	Grays Harbor	No
OL	997360	SR 109	24.23	unnamed	unnamed to Boone Cr	21	Grays Harbor	No
OL	997363	SR 109	24.56	unnamed	Boone Cr	21	Grays Harbor	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	991265	SR 109	26.1	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	997780	SR 109	27.05	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	997781	SR 109	27.41	Spruce Cr	Pacific Ocean	21	Grays Harbor	No
OL	990138	SR 109	28.05	Elk Cr	Pacific Ocean	21	Grays Harbor	Yes
OL	997784	SR 109	30.26	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	997786	SR 109	31.93	unnamed	Moclips R	21	Grays Harbor	Yes
OL	991272	SR 109	33.1	Wain Cr	Pacific Ocean	21	Grays Harbor	Yes
OL	991266	SR 109	33.4	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	997787	SR 109	33.87	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	990922	SR 109	35.73	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	997790	SR 109	36	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	991271	SR 109	36.38	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	991270	SR 109	36.43	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	990924	SR 109	37.43	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	990927	SR 109	39.15	unnamed	Pacific Ocean	21	Grays Harbor	Yes
OL	990559	SR 112	6.95	unnamed	Strait of Juan de Fuca	19	Clallam	Yes
OL	991259	SR 112	12.26	unnamed	Hoko R	19	Clallam	Yes
OL	996684	SR 112	17.14	unnamed	Clallam R	19	Clallam	Yes
OL	996687	SR 112	17.65	unnamed	Clallam R	19	Clallam	No
OL	996691	SR 112	19.36	unnamed	Clallam R	19	Clallam	No
OL	991731	SR 112	21.1	unnamed	Green Cr	19	Clallam	Yes
OL	996694	SR 112	21.64	unnamed	unnamed	19	Clallam	No
OL	996578	SR 112; Maint Yard	22.99	unnamed	Green Cr	19	Clallam	No
OL	996552	SR 112	23.07	unnamed	Green Cr	19	Clallam	No
OL	996554	SR 112	24.26	unnamed	Pysht R	19	Clallam	Yes
OL	996555	SR 112	24.77	unnamed	Pysht R	19	Clallam	Yes
OL	996556	SR 112	25.2	unnamed	Pysht R	19	Clallam	Yes
OL	991732	SR 112	29.12	Indian Cr	Strait of Juan De Fuca	19	Clallam	Yes
OL	990941	SR 112	29.7	Butler Cr	Butler Cove	19	Clallam	Yes
OL	991258	SR 112	29.71	unnamed	Butler Cr	19	Clallam	Yes
OL	996424	SR 112	31.46	unnamed	Jim Cr	19	Clallam	Yes
OL	996426	SR 112	32.85	unnamed	Joe Cr	19	Clallam	No
OL	996427	SR 112	33.02	unnamed	Joe Cr	19	Clallam	No
OL	996430	SR 112	34.12	unnamed	Deep Cr	19	Clallam	Yes
OL	996431	SR 112	34.2	unnamed	Deep Cr	19	Clallam	Yes
OL	996432	SR 112	34.28	unnamed	Deep Cr	19	Clallam	Yes
OL	990715	SR 112	35.28	unnamed	Strait of Juan de Fuca	19	Clallam	No

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	996528	SR 112	44.34	unnamed	Murdock Cr	19	Clallam	Yes
OL	996529	SR 112	45.66	unnamed	Murdock Cr	19	Clallam	No
OL	990480	SR 112	49.48	Whiskey Cr	Strait of Juan de Fuca	19	Clallam	Yes
OL	996536	SR 112	49.62	EF Whiskey Cr	Whiskey Cr	19	Clallam	Yes
OL	991693	SR 112	50.73	unnamed	Whiskey Cr	19	Clallam	Yes
OL	991738	SR 112	51.6	Upha Cr	Salt Cr	19	Clallam	Yes
OL	991661	SR 112	53.5	Falls Cr	Salt Cr	19	Clallam	Yes
OL	991686	SR 112	56.5	unnamed	Coville Cr	19	Clallam	Yes
OL	996541	SR 112	57.05	unnamed	Coville Cr	19	Clallam	No
OL	991733	SR 113	0.9	unnamed	Beaver Cr	20	Clallam	Yes
OL	996563	SR 113	6.55	unnamed	Pysht R trib	19	Clallam	No
OL	996571	SR 113	8.35	unnamed	Pysht R	19	Clallam	Yes
OL	996573	SR 113	9.7	unnamed	Pysht R	19	Clallam	Yes
OL	996574	SR 113	9.81	unnamed	Pysht R	19	Clallam	Yes
OL	990077	SR 116	0.22	Chimacum Cr	Port Townsend Bay	17	Jefferson	Yes
OL	995521	SR 116	1.64	unnamed	Port Townsend Bay	17	Jefferson	Yes
OL	990943	SR 116	4.67	Kilisut Harbor	Oak Harbor	17	Jefferson	Yes
OL	995913	SR 119	5.66	unnamed	Lake Cushman	16	Mason	No
OL	995915	SR 119	7.02	unnamed	Lake Cushman	16	Mason	Yes
OL	995916	SR 119	7.8	unnamed	Lake Cushman	16	Mason	Yes
OL	995917	SR 119	8.2	unnamed	Big Cr	16	Mason	Yes
OL	995918	SR 119	8.35	unnamed	Big Cr	16	Mason	No
OL	933500	SR 119	9.38	Big Cr	Lake Cushman	16	Mason	Yes
OL	930022	SR 160	1.92	unnamed	unnamed	15	Kitsap	No
OL	990366	SR 160	2.29	Salmonberry Cr	Long Lk	15	Kitsap	Yes
OL	991567	SR 160	4.5	unnamed	Curley Cr	15	Kitsap	Yes
OL	996954	SR 160	5.13	unnamed	Sinclair Inlet	15	Kitsap	No
OL	996955	SR 160	6.06	unnamed	Puget Sound	15	Kitsap	No
OL	990970	SR 161	1.02	unnamed	Mashel R	11	Pierce	No
OL	995475	SR 161	14.89	unnamed	unnamed South Cr trib	11	Pierce	Yes
OL	991214	SR 162	3.7	unnamed	Puyallup R	10	Pierce	Yes
OL	991802	SR 162	6.33	unnamed	Puyallup R	10	Pierce	No
OL	105 R021121a	SR 162	11.04	Card Cr	Carbon R	10	Pierce	Yes
OL	105 R032918d	SR 162	12.44	Rauch Cr	Carbon R	10	Pierce	Yes
OL	996291	SR 162	13.64	unnamed	S Prairie Cr	10	Pierce	Yes
OL	105 R033020A	SR 162	16.67	unnamed	S Prairie Cr	10	Pierce	Yes
OL	105 R040517a	SR 162	19.11	unnamed	S Prairie Cr	10	Pierce	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	996343	SR 162	19.7	Spiketon Cr	S Prairie Cr	10	Pierce	Yes
OL	105 R033018B	SR 165	19.76	Spiketon Cr	S Prairie Cr	10	Pierce	Yes
OL	992009	SR 166	0.73	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	990358	SR 166	1.76	Ross Cr	Sinclair Inlet	15	Kitsap	Yes
OL	996956	SR 166	2.12	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	996957	SR 166	2.27	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	15.0208 0.00	SR 166	2.56	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	920412	SR 166; Mile Hill Dr	4.11	unnamed	Sinclair Inlet	15	Kitsap	Yes
OL	15.0201 0.90	SR 166	4.52	Olney Cr	Sinclair Inlet	15	Kitsap	Yes
OL	930603	SR 167; ROW	9.47	unnamed	Milwaukee Canal	10	Pierce	Yes
OL	996288	SR 167; NB Ext 8	10.46	unnamed	Milwaukee Canal	10	Pierce	Yes
OL	996699	SR 300	2.36	unnamed	Union R	15	Mason	Yes
OL	996700	SR 300	2.38	unnamed	Union R	15	Mason	No
OL	991559	SR 302	0.9	unnamed	North Bay	15	Mason	Yes
OL	996763	SR 302	1.25	unnamed	Coulter Cr	15	Mason	No
OL	996765	SR 302	1.86	unnamed	North Bay	15	Mason	Yes
OL	991522	SR 302	2.1	unnamed	North Bay	15	Mason	Yes
OL	991239	SR 302	2.36	unnamed	North Bay	15	Mason	Yes
OL	991523	SR 302	2.48	unnamed	North Bay	15	Mason	Yes
OL	991525	SR 302	4.2	Victor Cr	North Bay	15	Mason	Yes
OL	991526	SR 302	4.7	unnamed	Case Inlet	15	Mason	No
OL	991527	SR 302	5.5	unnamed	Rocky Bay	15	Pierce	Yes
OL	990286	SR 302	11.3	Minter Cr	Henderson Bay	15	Pierce	Yes
OL	15.0051 0.10	SR 302	11.44	Little Minter Cr	Minter Cr	15	Pierce	Yes
OL	15.0051 0.20	SR 302	11.5	Little Minter Cr	Minter Cr	15	Pierce	Yes
OL	996783	SR 302	15.95	unnamed	Henderson Bay	15	Pierce	Yes
OL	105 K051518a	SR 302	16.15	Goodnough Cr	Henderson Bay	15	Pierce	Yes
OL	990345	SR 302; SPPURDY	15.8	Purdy Cr	Burley Lagoon	15	Pierce	Yes
OL	994085	SR 303; NB off-ramp	6.63	Hoot Cr	Barker Cr	15	Kitsap	Yes
OL	990024	SR 303	6.66	Hoot Cr	Barker Cr	15	Kitsap	Yes
OL	994086	SR 303; NB on-ramp	6.68	Hoot Cr	Barker Cr	15	Kitsap	Yes
OL	930408	SR 303; LX	6.7	unnamed	Hoot Cr	15	Kitsap	Yes
OL	930416	SR 303; NB on ramp	6.72	unnamed	unnamed	15	Kitsap	No
OL	994320	SR 305	0.49	unnamed	Eagle Harbor	15	Kitsap	Yes
OL	994324	SR 305	0.62	unnamed	Eagle Harbor	15	Kitsap	Yes
OL	933644	SR 305	1.9	unnamed	Murden Cove	15	Kitsap	No
OL	994325	SR 305	2.44	Murden Cr	Murden Cove	15	Kitsap	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain
List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	933663	SR 305	3.37	unnamed	Murden Cove	15	Kitsap	No
OL	994326	SR 305	3.73	Manzanita Cr	Manzanita Bay	15	Kitsap	Yes
OL	933685	SR 305	5.23	unnamed	Port Madison	15	Kitsap	No
OL	933686	SR 305	5.37	unnamed	Manzanita Bay	15	Kitsap	Yes
OL	991958	SR 305	7.28	Klebeal Cr	Agate Passage	15	Kitsap	Yes
OL	994327	SR 305	8.92	Sam Snyder Cr	Liberty Bay	15	Kitsap	Yes
OL	994328	SR 305	10.55	unnamed	Liberty Bay	15	Kitsap	Yes
OL	991855	SR 305	12.59	unnamed	SF Dogfish Cr	15	Kitsap	Yes
OL	933284	SR 305	13.12	unnamed	Dogfish Cr	15	Kitsap	Yes
OL	991997	SR 307	0.98	unnamed	unnamed	15	Kitsap	Yes
OL	991998	SR 307	0.98	unnamed	unnamed	15	Kitsap	Yes
OL	991999	SR 307	1.34	unnamed	Dogfish Cr	15	Kitsap	Yes
OL	991572	SR 307	1.45	unnamed	Dogfish Cr	15	Kitsap	Yes
OL	991851	SR 307	2.5	unnamed	Gamble Cr	15	Kitsap	Yes
OL	996931	SR 308	0.3	Clear Cr	Puget Sound	15	Kitsap	Yes
OL	990235	SR 308	0.94	Big Scandia Cr	Liberty Bay	15	Kitsap	Yes
OL	15.0280 1.00	SR 308	1.15	Big Scandia Cr	Liberty Bay	15	Kitsap	Yes
OL	992008	SR 308	1.33	Little Scandia Cr	Liberty Bay	15	Kitsap	Yes
OL	991000	SR 308	2.16	unnamed	Puget Sound	15	Kitsap	Yes
OL	996933	SR 308	2.41	unnamed	Liberty Bay	15	Kitsap	No
OL	996932	SR 308	2.57	unnamed	Liberty Bay	15	Kitsap	Yes
OL	996619	SR 410	21.73	unnamed	Lake Tapps Canal	10	Pierce	Yes
OL	125 1502W11B	SR 507	8.22	unnamed	Skookumchuck R	23	Thurston	Yes
OL	995893	SR 507	30.61	McKenna Cr	Nisqually R	11	Thurston	Yes
OL	105 R121419a	SR 509	2.98	Wapato Cr	Blair Waterway	10	Pierce	Yes
OL	933183	SR 509	5.24	unnamed	Commencement Bay	10	Pierce	Yes
OL	933185	SR 509	5.81	unnamed	Commencement Bay	10	Pierce	No
OL	990656	SR 510	5.64	unnamed	McAllister Cr	11	Thurston	Yes
OL	991052	SR 510	6.28	unnamed	McAllister Cr	11	Thurston	No
OL	997920	SR 512	3.3	unnamed	NF Clover Cr	12	Pierce	Yes
OL	932347	SR 512	8.25	Silver Cr	Meeker Cr	10	Pierce	Yes
OL	932349	SR 512; EB off ramp	8.25	Silver Cr	Meeker Cr	10	Pierce	Yes
OL	932345	SR 512; WB on ramp	8.25	Silver Cr	Meeker Cr	10	Pierce	Yes
OL	991229	SR 702	4.53	unnamed	unnamed to Nisqually R	11	Pierce	Yes
OL	995899	SR 702	5.6	unnamed	Horn Cr	11	Pierce	No
OL	990485	US 12	0.61	Wilson Cr	Chehalis R	22	Grays Harbor	Yes
OL	994788	US 12	3.76	Elliott Sl	Chehalis R	22	Grays Harbor	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	991284	US 12	4.59	unnamed	Mox Chuck Sl	22	Grays Harbor	Yes
OL	991283	US 12	5.24	unnamed	Mox Chuck Sl	22	Grays Harbor	Yes
OL	991285	US 12	5.38	unnamed	unnamed	22	Grays Harbor	Yes
OL	991633	US 12	5.62	unnamed	unnamed	22	Grays Harbor	Yes
OL	991910	US 12	6.55	unnamed	Higgins Sl	22	Grays Harbor	Yes
OL	990957	US 12	6.58	unnamed	Higgins Sl	22	Grays Harbor	Yes
OL	990958	US 12	6.92	Higgins Sl	Chehalis R	22	Grays Harbor	Yes
OL	991911	US 12	7.26	unnamed	Higgins Sl	22	Grays Harbor	Yes
OL	991528	US 12	11.01	unnamed	unnamed Chehalis R trib	22	Grays Harbor	Yes
OL	931349	US 12	11.49	unnamed	unnamed Chehalis R trib	22	Grays Harbor	Yes
OL	22.0349 0.70	US 12	12.36	Camp Cr	Smith Canal	22	Grays Harbor	Yes
OL	933616	US 12	17.56	unnamed	Wenzel Sl	22	Grays Harbor	Yes
OL	125 1806W34G	US 12	19.17	unnamed	Vance Cr	22	Grays Harbor	Yes
OL	991533	US 12	23.3	unnamed	Chehalis R	22	Grays Harbor	Yes
OL	994799	US 12	26.87	unnamed	Chehalis R	22	Grays Harbor	Yes
OL	991541	US 12	28.17	unnamed	Chehalis R	23	Grays Harbor	Yes
OL	991540	US 12	28.6	unnamed	Chehalis R	23	Grays Harbor	Yes
OL	991535	US 12	29.19	unnamed	Chehalis R	23	Grays Harbor	Yes
OL	991536	US 12	29.45	unnamed	Chehalis R	23	Grays Harbor	Yes
OL	996710	US 12	31.19	unnamed	Chehalis R	23	Grays Harbor	No
OL	996712	US 12	31.61	unnamed	Cedar Cr	23	Grays Harbor	Yes
OL	996714	US 12	32.69	unnamed	Cedar Cr	23	Grays Harbor	Yes
OL	991538	US 12	33.44	unnamed	Chehalis R	23	Grays Harbor	Yes
OL	991539	US 12	33.6	unnamed	Chehalis R	23	Grays Harbor	Yes
OL	990563	US 12	36.33	Roundtree Cr	Harris Cr	23	Grays Harbor	Yes
OL	993670	US 101	80.4	unnamed	Chehalis R	22	Grays Harbor	Yes
OL	993674	US 101	89.48	unnamed	Hoquiam R	22	Grays Harbor	Yes
OL	993681	US 101; ROW	89.48	unnamed	Hoquiam R	22	Grays Harbor	Yes
OL	993675	US 101	89.77	unnamed	Hoquiam R	22	Grays Harbor	Yes
OL	993679	US 101	90.73	unnamed	Hoquiam R	22	Grays Harbor	Yes
OL	993680	US 101	90.95	unnamed	Hoquiam R	22	Grays Harbor	Yes
OL	993688	US 101	92.33	unnamed	WF Hoquiam R	22	Grays Harbor	Yes
OL	993695	US 101	93.49	unnamed	WF Hoquiam R	22	Grays Harbor	Yes
OL	990732	US 101	93.79	unnamed	WF Hoquiam R	22	Grays Harbor	Yes
OL	993698	US 101	95.46	unnamed	WF Hoquiam R	22	Grays Harbor	Yes
OL	993702	US 101	98.47	unnamed	WF Hoquiam R	22	Grays Harbor	Yes
OL	993704	US 101	99.45	unnamed	WF Hoquiam R	22	Grays Harbor	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	990730	US 101	100.7	unnamed	unnamed	22	Grays Harbor	Yes
OL	990033	US 101	102.97	unnamed	Big Cr	22	Grays Harbor	Yes
OL	993712	US 101	103.25	unnamed	Big Cr	22	Grays Harbor	Yes
OL	991501	US 101	103.65	unnamed	Big Cr	22	Grays Harbor	Yes
OL	993717	US 101	110.84	unnamed	Stevens Cr	22	Grays Harbor	Yes
OL	990731	US 101	111.34	unnamed	Stevens Cr	22	Grays Harbor	Yes
OL	991690	US 101	111.9	unnamed	Stevens Cr	22	Grays Harbor	Yes
OL	997309	US 101	122.92	unnamed	McCalla Cr	21	Grays Harbor	Yes
OL	990276	US 101	123.05	McCalla Cr	Boulder Cr	21	Grays Harbor	Yes
OL	991653	US 101	126.24	unnamed	Quinault R	21	Grays Harbor	Yes
OL	990543	US 101	132	unnamed	Ten O Clock Cr	21	Grays Harbor	Yes
OL	990544	US 101	132.16	unnamed	Ten O Clock Cr	21	Grays Harbor	Yes
OL	990452	US 101	135.26	unnamed	Lunch Cr	21	Grays Harbor	Yes
OL	990546	US 101	135.68	Lunch Cr	Raft R	21	Grays Harbor	Yes
OL	990453	US 101	135.95	unnamed	Lunch Cr	21	Grays Harbor	Yes
OL	990883	US 101	137.32	Crane Cr	Raft R	21	Grays Harbor	Yes
OL	990548	US 101	142.48	Harlow Cr	Queets R	21	Grays Harbor	Yes
OL	990457	US 101	142.68	Harlow Cr	Queets R	21	Grays Harbor	Yes
OL	990178	US 101	146.85	Harlow Cr	Queets R	21	Jefferson	Yes
OL	990148	US 101	147.49	Fisher Cr	Queets R	21	Jefferson	Yes
OL	997342	US 101	152.47	unnamed	Queets R	21	Jefferson	Yes
OL	991268	US 101	153.96	unnamed	Pacific Ocean	21	Jefferson	No
OL	997345	US 101	154.27	unnamed	Pacific Ocean	21	Jefferson	No
OL	990549	US 101	154.45	unnamed	Pacific Ocean	21	Jefferson	No
OL	990722	US 101	154.88	unnamed	Pacific Ocean	21	Jefferson	No
OL	990550	US 101	154.9	unnamed	Pacific Ocean	21	Jefferson	Yes
OL	991276	US 101	156.1	unnamed	Pacific Ocean	21	Jefferson	Yes
OL	996220	US 101	160.42	unnamed	Pacific Ocean	20	Jefferson	No
OL	996223	US 101	160.89	unnamed	Pacific Ocean	20	Jefferson	Yes
OL	991261	US 101	161.5	unnamed	Pacific Ocean	20	Jefferson	Yes
OL	990400	US 101	162.6	Steamboat Cr	Pacific Ocean	20	Jefferson	Yes
OL	991262	US 101	163.13	unnamed	Pacific Ocean	20	Jefferson	Yes
OL	996224	US 101	164.57	unnamed	Pacific Ocean	20	Jefferson	No
OL	996225	US 101	165.11	unnamed	Cedar Cr	20	Jefferson	No
OL	934255	US 101	167.52	unnamed	Fletcher Cr	20	Jefferson	No
OL	996228	US 101	169.19	unnamed	Braden Cr	20	Jefferson	Yes
OL	990717	US 101	169.42	unnamed	Braden Cr	20	Jefferson	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	990552	US 101	169.69	unnamed	unnamed Braden Cr trib	20	Jefferson	Yes
OL	997051	US 101	169.89	unnamed	unnamed Braden Cr trib	20	Jefferson	No
OL	997052	US 101	169.94	unnamed	Hoh R	20	Jefferson	Yes
OL	990553	US 101	170.12	unnamed	Hoh R	20	Jefferson	Yes
OL	990719	US 101	170.81	unnamed	Hoh R	20	Jefferson	Yes
OL	997053	US 101	170.87	unnamed	unnamed Hoh R trib	20	Jefferson	Yes
OL	997054	US 101	171.29	unnamed	Hoh R	20	Jefferson	Yes
OL	997055	US 101	174.43	unnamed	Hoh R	20	Jefferson	Yes
OL	997059	US 101	174.79	unnamed	Old Joe Sl	20	Jefferson	No
OL	991647	US 101	175.45	unnamed	Hoh R	20	Jefferson	Yes
OL	933682	US 101;ROW	175.77	unnamed	Hoh R	20	Jefferson	Yes
OL	991598	US 101	175.91	unnamed	Hoh R	20	Jefferson	Yes
OL	997063	US 101	176.55	unnamed	Hoh R	20	Jefferson	Yes
OL	997070	US 101	177.77	unnamed	Hoh R	20	Jefferson	No
OL	997071	US 101	177.8	unnamed	unnamed Hoh R trib	20	Jefferson	Yes
OL	991575	US 101	181.2	unnamed	Dowans Cr	20	Jefferson	Yes
OL	991574	US 101	181.46	unnamed	Dowans Cr	20	Jefferson	Yes
OL	991507	US 101	182.2	unnamed	Dowans Cr	20	Jefferson	Yes
OL	991508	US 101	182.84	unnamed	Dowans Cr	20	Jefferson	Yes
OL	991509	US 101	183.05	unnamed	Dowans Cr	20	Jefferson	Yes
OL	997081	US 101	183.11	unnamed	Dowans Cr	20	Jefferson	Yes
OL	991510	US 101	183.87	unnamed	Bogachiel R	20	Jefferson	No
OL	990269	US 101	184.66	May Cr	Bogachiel R	20	Clallam	Yes
OL	997087	US 101	184.87	unnamed	Bogachiel R	20	Clallam	Yes
OL	997091	US 101	187.18	unnamed	Bogachiel R	20	Clallam	Yes
OL	991505	US 101	188.09	unnamed	Bogachiel R	20	Clallam	Yes
OL	997093	US 101	188.19	unnamed	Bogachiel R	20	Clallam	Yes
OL	997095	US 101	188.42	unnamed	Bogachiel R	20	Clallam	Yes
OL	997096	US 101	188.64	unnamed	Bogachiel R	20	Clallam	No
OL	933421	US 101	189.14	unnamed	Grader Cr	20	Clallam	Yes
OL	991264	US 101	189.25	unnamed	Grader Cr	20	Clallam	Yes
OL	990169	US 101	189.4	Grader Cr	Bogachiel R	20	Clallam	Yes
OL	997098	US 101	190.05	unnamed	Mill Cr	20	Clallam	Yes
OL	997097	US 101	191.12	Uncle John's Cr	Mill Cr	20	Clallam	Yes
OL	997107	US 101	202.71	unnamed	Sol Duc R	20	Clallam	Yes
OL	990554	US 101	209.32	Wisen Cr	Sol Duc R	20	Clallam	Yes
OL	997108	US 101	210.22	unnamed	Sol Duc R	20	Clallam	No

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	997109	US 101	210.78	unnamed	Sol Duc R	20	Clallam	Yes
OL	995815	US 101	235.81	unnamed	Indian Cr	18	Clallam	No
OL	995816	US 101	236.28	unnamed	Indian Cr	18	Clallam	Yes
OL	995817	US 101	236.35	unnamed	Indian Cr	18	Clallam	Yes
OL	995818	US 101	237.98	unnamed	Indian Cr	18	Clallam	Yes
OL	18.0283 2.00	US 101	238.35	Indian Cr	Elwha R	18	Clallam	Yes
OL	995823	US 101	239.31	unnamed	Indian Cr	18	Clallam	Yes
OL	932888	US 101; off-ramp	246.18	unnamed	Turnwater Cr	18	Clallam	Yes
OL	990448	US 101	246.4	Turnwater Cr	Port Angeles Harbor	18	Clallam	Yes
OL	990326	US 101	248.1	Peabody Cr	Strait of Juan de Fuca	18	Clallam	Yes
OL	990481	US 101	249.4	White Cr	Ennis Cr	18	Clallam	Yes
OL	18.0234 1.10	US 101	250	Ennis Cr	Strait of Juan de Fuca	18	Clallam	Yes
OL	990240	US 101	250.5	Lees Cr	Strait of Juan de Fuca	18	Clallam	Yes
OL	934250	US 101 ROW	253.84	unnamed	Bagley Cr	18	Clallam	Yes
OL	990021	US 101	253.85	Bagley Cr	Strait of Juan De Fuca	18	Clallam	Yes
OL	995544	US 101	255.65	unnamed	Siebert Cr	18	Clallam	No
OL	18.0173 2.40	US 101	256.1	Siebert Cr	Strait of Juan de Fuca	18	Clallam	Yes
OL	933369	US 101	263.43	Sequim Prairie Tri irrigation ditch	Gierin Cr	18	Clallam	Yes
OL	995551	US 101	263.68	Sequim Prairie Tri irrigation ditch	Gierin Cr	18	Clallam	Yes
OL	990219	US 101	267.18	Johnson Cr	Sequim Bay	17	Clallam	Yes
OL	991667	US 101	268.54	unnamed	Sequim Bay	17	Clallam	Yes
OL	991666	US 101	269.24	unnamed	Sequim Bay	17	Clallam	Yes
OL	994464	US 101	269.49	unnamed	Sequim Bay	17	Clallam	Yes
OL	991735	US 101	271.22	unnamed	Sequim Bay	17	Clallam	Yes
OL	994478	US 101; ROW	271.22	unnamed	Sequim Bay	17	Clallam	Yes
OL	990712	US 101	271.57	unnamed	Sequim Bay	17	Clallam	Yes
OL	991850	US 101	271.83	unnamed	Sequim Bay	17	Clallam	Yes
OL	990075	US 101	271.98	Chicken Coop Cr	Sequim Bay	17	Clallam	Yes
OL	990134	US 101	274.25	Eagle Cr	Strait of Juan de Fuca	17	Clallam	Yes
OL	995484	US 101	275.72	unnamed	Eagle Cr	17	Jefferson	Yes
OL	990090	US 101	277.9	Contractors Cr	Discovery Bay	17	Jefferson	Yes
OL	995488	US 101	278.66	unnamed	Discovery Bay	17	Jefferson	No
OL	995490	US 101	281.61	unnamed	Discovery Bay	17	Jefferson	Yes
OL	995491	US 101	281.72	unnamed	Discovery Bay	17	Jefferson	Yes
OL	995497	US 101	283.57	unnamed	Snow Cr	17	Jefferson	Yes
OL	995496	US 101	284.87	unnamed	Snow Cr	17	Jefferson	Yes
OL	995760	US 101; NB onramp	284.87	unnamed	Snow Cr	17	Jefferson	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
OL	991673	US 101	285.69	Andrews Cr	Snow Cr	17	Jefferson	Yes
OL	995499	US 101	289.36	unnamed	Leland Cr	17	Jefferson	Yes
OL	995500	US 101	289.91	unnamed	Leland Cr	17	Jefferson	No
OL	990896	US 101	290.35	unnamed	Leland Cr	17	Jefferson	Yes
OL	930373	US 101	291.73	unnamed	Leland Cr	17	Jefferson	No
OL	995502	US 101	291.79	unnamed	Leland Cr	17	Jefferson	Yes
OL	990241	US 101	292.52	Leland Cr	L Quilcene R	17	Jefferson	Yes
OL	994484	US 101	303.01	Marple Cr	Jackson Cove	17	Jefferson	Yes
OL	990449	US 101	304.24	Turner Cr	Hood Canal	16	Jefferson	No
OL	995931	US 101	305.59	unnamed	Hood Canal	16	Jefferson	Yes
OL	990899	US 101	307	Twana Cr	Hood Canal	16	Jefferson	Yes
OL	995935	US 101	310.27	unnamed	Hood Canal	16	Jefferson	No
OL	995936	US 101	310.4	unnamed	Hood Canal	16	Jefferson	Yes
OL	991603	US 101	314.1	unnamed	Hood Canal	16	Jefferson	Yes
OL	991606	US 101	315.19	Schaerer Cr	Hood Canal	16	Mason	Yes
OL	991614	US 101	322.83	unnamed	Hood Canal	16	Mason	Yes
OL	996135	US 101	325.68	unnamed	Hood Canal	16	Mason	Yes
OL	996138	US 101	327.76	Little Lilliwaup Cr	Hood Canal	16	Mason	Yes
OL	996358	US 101	331.18	unnamed	Hood Canal	16	Mason	No
OL	991254	US 101	331.83	unnamed	Hood Canal	16	Mason	Yes
OL	990191	US 101	332.65	Hill Cr	Hood Canal	16	Mason	Yes
OL	933494	US 101	334.3	unnamed	Hood Canal	16	Mason	No
OL	996366	US 101	334.4	unnamed	Hood Canal	16	Mason	Yes
OL	991250	US 101	335.93	unnamed	Hood Canal	16	Mason	Yes
OL	996371	US 101	338.37	unnamed	Skobob Cr	16	Mason	Yes
OL	115 MC093	US 101	346.95	Coffee Cr	Goldsborough Cr	14	Mason	Yes
OL	115 MC180	US 101	348.21	unnamed	Mill Cr	14	Mason	Yes
OL	997158	US 101	354.01	unnamed	Skookum Cr	14	Mason	Yes
OL	997159	US 101	354.22	unnamed	Skookum Cr	14	Mason	No
OL	115 MC144	US 101	355.58	unnamed	Totten Inlet	14	Mason	Yes
OL	997157	US 101	356.48	unnamed	Schneider Cr	14	Mason	Yes
OL	14.0010 0.10	US 101	356.8	Countyline Cr	Schneider Cr	14	Mason	Yes
OL	997161	US 101	357.4	Griggs Cr	Schneider Cr	14	Thurston	Yes
OL	991477	US 101	360.6	unnamed	Eld Inlet	14	Thurston	Yes
SW	995538	I-5	71.34	unnamed	unnamed Newaukum R trib	23	Lewis	Yes
SW	994300	I-5	78.11	unnamed	Dillenbaugh Cr	23	Lewis	Yes
SW	990735	SR 6	22.64	Salmon Cr	Rock Cr	23	Pacific	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
SW	990736	SR 6	22.94	unnamed	Salmon Cr	23	Pacific	Yes
SW	990737	SR 6	23.49	unnamed	Rock Cr	23	Pacific	Yes
SW	991654	SR 6	24.3	unnamed	Rock Cr	23	Pacific	No
SW	990738	SR 6	25.24	unnamed	Rock Cr	23	Lewis	Yes
SW	990740	SR 6	26.36	unnamed	Rock Cr	23	Lewis	Yes
SW	990741	SR 6	29	unnamed	Chehalis R	23	Lewis	Yes
SW	990744	SR 6	31.06	SB Fronia Cr	Fronia Cr	23	Lewis	Yes
SW	990746	SR 6	31.08	SB Fronia Cr	Fronia Cr	23	Lewis	Yes
SW	930852	SR 6	33.3	unnamed	Chehalis R	23	Lewis	Yes
SW	990751	SR 6	33.56	unnamed	unnamed	23	Lewis	Yes
SW	990755	SR 6	34.85	unnamed	Chehalis R	23	Lewis	Yes
SW	990756	SR 6	35.08	unnamed	Chehalis R	23	Lewis	Yes
SW	990757	SR 6	35.42	unnamed	Chehalis R	23	Lewis	Yes
SW	990758	SR 6	35.85	unnamed	Chehalis R	23	Lewis	Yes
SW	990423	SR 6	36.74	unnamed	Hope Cr	23	Lewis	Yes
SW	990764	SR 6	42.38	unnamed	unnamed	23	Lewis	No
SW	991221	SR 6	43.61	unnamed	Chehalis R	23	Lewis	Yes
SW	991544	SR 6	46.39	unnamed	Chehalis R	23	Lewis	Yes
SW	991757	SR 6	46.5	unnamed	Chehalis R	23	Lewis	Yes
SW	994954	SR 508	0.53	Allen Cr	Newaukum R	23	Lewis	Yes
SW	994955	SR 508	0.64	unnamed	Allen Cr	23	Lewis	Yes
SW	994958	SR 508	1.7	unnamed	unnamed Allen Cr trib	23	Lewis	Yes
SW	994959	SR 508	1.85	unnamed	unnamed Allen Cr trib	23	Lewis	Yes
SW	992277	SR 508	4.26	unnamed	SF Newaukum R	23	Lewis	Yes
SW	994966	SR 508	4.7	unnamed	SF Newaukum R	23	Lewis	Yes
SW	991756	SR 508	5.1	unnamed	SF Newaukum R	23	Lewis	Yes
SW	991292	SR 508	5.53	unnamed	SF Newaukum R	23	Lewis	Yes
SW	991293	SR 508	6.78	unnamed	SF Newaukum R	23	Lewis	Yes
SW	994969	SR 508	8.88	unnamed	SF Newaukum R	23	Lewis	Yes
SW	994971	SR 508	11.27	unnamed	SF Newaukum R	23	Lewis	Yes
SW	991288	SR 508	11.55	unnamed	SF Newaukum R	23	Lewis	Yes
SW	991289	SR 508	12.66	unnamed	SF Newaukum R	23	Lewis	Yes
SW	991290	SR 508	15.1	unnamed	Kearney Cr	23	Lewis	Yes
SW	994976	SR 508	15.42	unnamed	unnamed Kearney Cr trib	23	Lewis	Yes
SW	991296	SR 508	15.85	unnamed	Kearney Cr	23	Lewis	Yes
SW	994979	SR 508	16.5	unnamed	unnamed Stowell Cr trib	23	Lewis	Yes
SW	994981	SR 508	16.99	unnamed	Stowell Cr	23	Lewis	Yes

Appendix II. WSDOT Culvert Barriers Relevant to the Injunction (as of June 3, 2019)

817 barrier culverts with ≥ 200 meters habitat gain; 184 barrier culverts with <200 meters habitat gain

List sorted by WSDOT Region, Highway, and Milepost location.

WSDOT Region	Site Id	Road	Milepost	Stream	Tributary to	WRIA	County	Lineal Habitat Gain ≥ 200 meters
SW	991291	SR 508	17.06	unnamed	Stowell Cr	23	Lewis	Yes
SW	994463	SR 508	17.55	Stowell Cr	Kearney Cr	23	Lewis	Yes

Appendix III

Appendix III. Updates to the disposition of WSDOT Injunction Barrier List since September 24, 2013 (updates as of June 3, 2019)

One hundred forty-eight culverts are no longer injunction barriers requiring repair. One hundred thirty-five newly identified barrier culverts added to the injunction barrier list.

List sorted by Road and Milepost location

Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
09.0377	2.12	21.80	Des Moines Cr	Puget Sound	9	not an injunction barrier	not WSDOT ownership	6/11/2014
08.0183	3.10	20.28	EF Issaquah Cr	Issaquah Cr	8	not an injunction barrier	not WSDOT ownership	7/24/2014
991040	I-5	86.20	unnamed	Chehalis R	23	added to injunction barrier list	newly identified barrier	9/12/2017
991659	I-5	98.11	unnamed	Salmon Cr	23	added to injunction barrier list	newly identified barrier	4/13/2017
998888	I-5	109.19	College Cr	Woodland Cr	13	added to injunction barrier list	newly identified barrier	1/25/2016
933313	I-5; NB	115.77	unnamed	unnamed Red Salmon Cr trib	11	added to injunction barrier list	newly identified barrier	6/1/2015
933186	I-5	134.33	unnamed	Puyallup R	10	added to injunction barrier list	newly identified barrier	9/9/2015
933613	I-5; ROW S 288th St	145.81	Bingaman Cr	Bingaman Pond	9	added to injunction barrier list	newly identified barrier	2/3/2017
991031	I-5	145.93	Bingaman Cr	Green R	9	added to injunction barrier list	newly identified barrier	1/6/2016
934543	I-5	172.38	unnamed	SF Thornton Cr	8	added to injunction barrier list	newly identified barrier	3/29/2019
993116	I-5	180.63	Scriber Cr	Swamp Cr	4	not an injunction barrier	culvert determined to not be a barrier	1/4/2018
933665	I-5	196.24	unnamed	Snohomish R	7	added to injunction barrier list	newly identified barrier - Significant Reach	4/22/2019
995284	I-5	203.22	unnamed	WF Quilceda Cr	07.0051	not an injunction barrier	culvert determined to not be a barrier	2/3/2017
102 Q058	I-5	203.24	unnamed	WF Quilceda Cr	7	not an injunction barrier	duplicate record	11/4/2013
990623	I-5 SB	211.70	Secret Cr	Pilchuck Cr	5	added to injunction barrier list	newly identified barrier	4/17/2018
03.0181	0.50	219.41	Fisher Cr	Carpenter Cr	03.0181	not an injunction barrier	barrier corrected	10/13/2017
991036	I-5	255.15	Squalicum Cr	Bellingham Bay	1	not an injunction barrier	barrier corrected	12/30/2015
995701	I-5	258.56	unnamed	unnamed to Silver Cr	1	added to injunction barrier list	newly identified barrier	3/16/2016
995723	I-5; NB Ext 260	260.00	unnamed	Silver Cr	1	added to injunction barrier list	newly identified barrier	9/18/2017
995720	I-5; NB	270.14	unnamed	unnamed California Cr trib	1	added to injunction barrier list	newly identified barrier	6/18/2015
933400	I-5 NB ROW	270.20	unnamed	unnamed California Cr trib	1	added to injunction barrier list	newly identified barrier	7/2/2015
933867	I-90	6.75	unnamed	Lake Washington	8	added to injunction barrier list	newly identified barrier	9/11/2017
994415	I-90	14.71	unnamed	Lake Sammamish	8	added to injunction barrier list	newly identified barrier.	10/11/2017
996475	I-90; WB off-ramp	17.00	unnamed	NF Issaquah Cr	8	added to injunction barrier list	newly identified barrier	10/13/2016
996963	I-90; WB on-ramp	17.00	NF Issaquah Cr	Issaquah Cr	08.0181	not an injunction barrier	barrier corrected	10/13/2017
996475	I-90; WB off-ramp	17.00	unnamed	NF Issaquah Cr	8	not an injunction barrier	barrier corrected	10/13/2017
934151	I-90 ROW	17.06	unnamed	NF Issaquah Cr	8	added to injunction barrier list	newly identified barrier	5/8/2017
934151	I-90 ROW	17.06	unnamed	NF Issaquah Cr	8	not an injunction barrier	barrier corrected	10/13/2017
996473	I-90; EB	21.23	unnamed	EF Issaquah Cr	8	not an injunction barrier	not a barrier	8/4/2017
998969	I-405	4.61	unnamed	Lake Washington	8	added to injunction barrier list	newly identified barrier	12/5/2018
996482	I-405	5.09	Johns Cr	Lake Washington	8	added to injunction barrier list	species use verified, salmon and/or steelhead present	9/9/2015
999410	I-405	6.31	Clover Cr	Lk Washington	8	not an injunction barrier	species use verified, salmon and/or steelhead are not present	6/6/2017
933259	I-405	7.61	Gypsy Cr	Lake Washington	8	added to injunction barrier list	newly identified barrier	5/18/2015
998971	I-405	7.83	unnamed	Lake Washington	8	added to injunction barrier list	newly identified barrier	5/18/2015
998972	I-405	7.90	unnamed	Lake Washington	8	added to injunction barrier list	newly identified barrier	5/18/2015
934704	I-405	8.15	unnamed	Lake Washington	8	added to injunction barrier list	newly identified barrier	1/14/2019
932933	I-405	10.00	unnamed	Coal Cr	8	added to injunction barrier list	newly identified barrier	12/5/2018
933258	I-405	12.03	Trail Cr	Mercer Sl	8	added to injunction barrier list	newly identified barrier	5/18/2015
933244	I-405	13.05	Sturtevant Cr	Richards Cr	8	added to injunction barrier list	newly identified barrier	2/24/2015
932812	I-405	20.50	unnamed	Juanita Cr	8	added to injunction barrier list	newly identified barrier	10/29/2014
998979	I-405; SB	21.44	unnamed	Juanita Cr	8	not an injunction barrier	stream determined to be non-fish bearing	8/4/2016

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List sorted by Road and Milepost location

Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
991008	I-405	27.70	unnamed	North Cr	8	added to injunction barrier list	newly identified barrier	3/29/2016
998976	I-405; SB	27.76	unnamed	North Cr	8	added to injunction barrier list	newly identified barrier	3/29/2016
993898	I-405; ROW	29.67	Martha Cr	Swamp Cr	8	not an injunction barrier	not WSDOT ownership	12/28/2015
996885	Redmond Way	5.33	unnamed	unnamed	8	not an injunction barrier	not WSDOT ownership	1/7/2014
996886	Redmond Way	5.40	unnamed	Peters Cr	8	not an injunction barrier	not WSDOT ownership	1/7/2014
996887	Redmond Way	5.69	Peters Cr	Sammanish R	8	not an injunction barrier	not WSDOT ownership	1/7/2014
931620	SR 3; ROW	25.78	unnamed	Mindy Cr	15	not an injunction barrier	not WSDOT ownership	2/19/2015
931621	SR 3; ROW	25.78	unnamed	Mindy Cr	15	not an injunction barrier	not WSDOT ownership	2/19/2015
996735	SR 3	26.13	unnamed (Romance Hill)	Mindy Cr	15	not an injunction barrier	barrier corrected	12/20/2016
991995	SR 3	36.10	Wright Cr	Sinclair Inlet	15	added to injunction barrier list	newly identified barrier	10/12/2013
990755	SR 6	34.85	unnamed	Chehalis R	23	added to injunction barrier list	newly identified barrier	8/4/2016
990534	SR 6	40.53	unnamed	Chehalis R	23	not an injunction barrier	stream determined to be non-fish bearing	6/20/2016
990761	SR 6	41.70	unnamed	Chehalis R	23	not an injunction barrier	stream determined to be non-fish bearing	6/20/2016
990084	SR 7	11.56	Coal Cr	Roundtop Cr	11	not an injunction barrier	species use verified, salmon and/or steelhead are not present	10/30/2014
990672	SR 7	14.72	unnamed	East Cr	11	not an injunction barrier	species use verified, salmon and/or steelhead are not present	10/30/2014
990687	SR 7	38.60	unnamed	South Cr	11	not an injunction barrier	stream determined to be non-fish bearing	9/19/2014
990297	SR 7	41.17	Muck Cr	Nisqually R	11	not an injunction barrier	barrier corrected	12/31/2013
996274	SR 7	58.34	unnamed	Commencement Bay	10	added to injunction barrier list	newly identified barrier	12/28/2015
993722	SR 8	1.02	unnamed	Cloquallum Cr	22	added to injunction barrier list	newly identified barrier	12/5/2018
22.0507 0.10	SR 8	5.00	MF Wildcat Cr	EF Wildcat Cr	22	not an injunction barrier	barrier corrected	10/5/2018
990133	SR 8	6.30	EF Wildcat Cr	Wildcat Cr	22	not an injunction barrier	barrier corrected	10/5/2018
990706	SR 8	18.99	unnamed	Perry Cr	14	not an injunction barrier	species use verified, salmon and/or steelhead are not present	12/28/2015
990707	SR 8	18.99	unnamed	Perry Cr	14	not an injunction barrier	species use verified, salmon and/or steelhead are not present	12/28/2015
934011	SR 9; ROW (Broadway Ave)	0.07	unnamed	Snohomish R	7	added to injunction barrier list	newly identified barrier	12/21/2016
934015	SR 9; ROW (Broadway Ave)	0.12	unnamed	Snohomish R	7	added to injunction barrier list	newly identified barrier	12/21/2016
991810	SR 9; Access Rd	4.15	unnamed	unnamed	7	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/15/2015
LP19	SR 9	37.26	unnamed	unnamed Plichuck Creek tributary	5	added to injunction barrier list	newly identified as steelhead/steelhead	4/10/2018
991158	SR 9	38.88	unnamed	Plichuck Cr	5	added to injunction barrier list	newly identified barrier	4/4/2016
991120	SR 9	42.36	Lake Cr	Big Lk	3	not an injunction barrier	barrier corrected	12/29/2015
991114	SR 9	62.36	unnamed	Samish R	3	added to injunction barrier list	newly identified barrier	9/15/2015
SR71	SR 9	63.74	unnamed	Samish R	3	added to injunction barrier list	newly identified barrier	9/15/2015
991116	SR 9	65.32	unnamed	Samish R	3	added to injunction barrier list	newly identified barrier	9/10/2015
991446	SR 9	66.51	unnamed	Samish R	3	added to injunction barrier list	newly identified barrier	10/13/2015
991448	SR 9	67.33	NP Cr	Samish R	3	not an injunction barrier	barrier corrected	12/31/2013
01.0626 0.35	SR 11	18.60	Chuckanut Cr	Chuckanut Bay	1	added to injunction barrier list	newly identified barrier	9/11/2017
01.0626 0.35	SR 11	18.60	Chuckanut Cr	Chuckanut Bay	1	not an injunction barrier	culvert determined to not be a barrier	7/25/2018
994389	SR 11	20.25	Padden Cr	Bellingham Bay	1	not an injunction barrier	barrier corrected	12/30/2015
996754	SR 16; EB Ext	26.61	unnamed	Ross Cr	15	added to injunction barrier list	newly identified barrier	3/25/2019

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List sorted by Road and Milepost location

Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
990357	SR 16	26.80	Ross Cr	Sinclair Inlet	15	added to injunction barrier list	species use verified, salmon and/or steelhead present	6/15/2015
934154	SR 16	27.49	unnamed	Sinclair Inlet	15	added to injunction barrier list	newly identified barrier	5/1/2017
996753	SR 16; EB	28.10	Anderson Cr	Sinclair Inlet	15.0211	not an injunction barrier	barrier corrected	12/20/2016
990017	SR 16; WB	28.10	Anderson Cr	Sinclair Inlet	15.0211	not an injunction barrier	barrier corrected	12/20/2016
995970	SR 18	22.55	unnamed	unnamed Holder Cr trib	8	added to injunction barrier list	newly identified barrier - Limited Gain	3/4/2019
994859	SR 18	23.66	unnamed	Deep Cr	7	added to injunction barrier list	newly identified barrier - Significant Gain	3/4/2019
934791	SR 18	25.04	unnamed	Deep Cr	7	added to injunction barrier list	newly identified barrier - Significant Gain	3/4/2019
995978	SR 20	12.96	Crockett Lk	Keystone Harbor	6	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/7/2015
995423	SR 20	48.07	unnamed	Fidalgo Bay	3	added to injunction barrier list	newly identified barrier	7/24/2017
995424	SR 20	48.12	unnamed	Fidalgo Bay	3	added to injunction barrier list	newly identified barrier	7/24/2017
995425	SR 20	48.16	unnamed	Fidalgo Bay	3	added to injunction barrier list	newly identified barrier	7/24/2017
933175	SR 20	53.53	unnamed	Guemes Channel	3	added to injunction barrier list	newly identified barrier	6/18/2015
995432	SR 20	53.90	unnamed	Indian Sl	3	not an injunction barrier	not a culvert feature	2/3/2014
991146	SR 20	72.85	Childs Cr	Skagit R	3	added to injunction barrier list	newly identified barrier	9/16/2015
995438	SR 20	77.75	unnamed	Careys Cr	3	not an injunction barrier	culvert determined to not be a barrier	2/3/2017
991123	SR 20	80.10	unnamed	Skagit R	3	added to injunction barrier list	newly identified barrier	9/16/2015
GR43	SR 20	86.21	Ebing Cr	Skagit R	04	not an injunction barrier	culvert determined to not be a barrier	3/27/2017
991150	SR 20	87.20	Eagle Cr	Skagit R	4	added to injunction barrier list	newly identified barrier	10/28/2015
991711	SR 20	94.10	unnamed	Skagit R	4	not an injunction barrier	species use verified, salmon and/or steelhead are not present	7/3/2014
932471	SR 20	118.10	Unnamed	Thorton Cr	4	not an injunction barrier	stream determined to be non-fish bearing	1/12/2016
990233	SR 92	2.69	Little Plitchuck Cr	Plitchuck R	7	not an injunction barrier	barrier corrected	4/26/2019
991210	SR 99	6.86	WF Hylebos Cr	Hylebos Cr	10	not an injunction barrier	barrier corrected	12/29/2015
993095	SR 99	47.66	Scriber Cr	Swamp Cr	8	added to injunction barrier list	newly identified barrier	1/14/2019
991122	SR 99	48.00	Gribble Cr	WF Nookachamps Cr	3	not an injunction barrier	barrier corrected	4/26/2019
992205	SR 104	22.47	Grovers Cr	Miller Bay	15.0299	not an injunction barrier	barrier corrected	12/20/2016
991301	SR 105	31.38	unnamed	South Bay	22	not an injunction barrier	not a culvert feature	2/3/2014
994785	SR 105	46.39	unnamed	unnamed	22	not an injunction barrier	culvert determined to not be a barrier	12/1/2015
996127	SR 106	3.39	unnamed	Hood Canal	16	added to injunction barrier list	newly identified barrier	4/29/2015
991246	SR 106	13.50	Twanoth Falls Cr	Hood Canal	14	not an injunction barrier	barrier corrected	12/31/2013
933361	SR 107 ROW	4.31	unnamed	Chehalis R	22	added to injunction barrier list	newly identified barrier	1/25/2016
933360	SR 107	4.34	unnamed	Chehalis R	22	added to injunction barrier list	newly identified barrier	1/25/2016
990278	SR 108	8.89	McDonald Cr	Skookum Cr	14	added to injunction barrier list	newly identified barrier	5/4/2015
14.0021 0.30	SR 108	11.90	Little Skookum Cr	Skookum Cr	14.0021	not an injunction barrier	barrier corrected	12/20/2016
990919	SR 109	17.81	unnamed	Connor Cr	21	added to injunction barrier list	newly identified barrier	1/14/2019
990205	SR 112	5.17	Jansen Cr	Strait of Juan de Fuca	19.0228	not an injunction barrier	barrier corrected	12/20/2016
991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	19	not an injunction barrier	barrier corrected	12/26/2018
990214	SR 112	33.21	Joe Cr	Strait of Juan de Fuca	19.0109	not an injunction barrier	barrier corrected	12/20/2016
990144	SR 112	48.49	Field Cr	Strait of Juan de Fuca	19.0026	not an injunction barrier	barrier corrected	12/20/2016
991660	SR 112	52.90	Nordstrom Cr	Salt Cr	19.0011	not an injunction barrier	barrier corrected	10/13/2017
990092	SR 112	57.61	Coville Cr	Strait of Juan de Fuca	19	not an injunction barrier	barrier corrected	12/31/2013
990077	SR 116	0.22	Chimacum Cr	Port Townsend Bay	17	added to injunction barrier list	newly identified barrier	10/28/2015

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Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
990943	SR 116	4.67	Kilisut Harbor	Oak Harbor	17	added to injunction barrier list	newly identified barrier	11/15/2013
995019	SR 119	3.98	unnamed	Lake Kokanee	16	not an injunction barrier	species use verified, salmon and/or steelhead are not present	6/30/2015
995913	SR 119	5.66	unnamed	Lk Cushman	16	added to injunction barrier list	newly identified barrier	6/30/2015
993500	SR 119	9.38	Big Cr	Lake Cushman	16	added to injunction barrier list	newly identified barrier	3/1/2018
990972	SR 161	12.85	South Cr	Muck Cr	11.0028	not an injunction barrier	barrier corrected	12/20/2016
991800	SR 162	4.39	unnamed	Puyallup R	10	not an injunction barrier	culvert determined to not be a barrier	11/22/2016
991215	SR 162	4.82	Ball Cr	Puyallup R	10	not an injunction barrier	barrier corrected	12/31/2013
105 R033020A	SR 162	16.66	unnamed	S Prairie Cr	10	added to injunction barrier list	newly identified barrier	6/9/2017
996308	SR 164; ROW	7.00	unnamed	White R	10	not an injunction barrier	not WSDOT ownership	3/15/2016
991837	SR 164	10.21	unnamed	unnamed	10	not an injunction barrier	not a barrier	6/28/2017
992009	SR 166	0.52	unnamed	Sinclair Inlet	15	added to injunction barrier list	newly identified barrier	5/1/2017
990358	SR 166	1.76	Ross Cr	Sinclair Inlet	15	added to injunction barrier list	newly identified barrier	3/25/2019
990083	SR 167	0.82	Clear Cr	Puyallup R	10	not an injunction barrier	not a culvert feature	2/3/2014
996290	SR 167	11.37	unnamed	Milwaukee Canal	10	not an injunction barrier	culvert determined to not be a barrier	10/29/2013
105 R050320a	SR 167; NB Ext 8	12.05	Jovita Cr	Milwaukee Canal	10.0033	not an injunction barrier	barrier corrected	12/20/2016
930179	SR 167; ROW	12.72	unnamed	Milwaukee Canal	10	not an injunction barrier	barrier corrected	12/20/2016
990394	SR 167	21.64	Spring Brook Cr	Black R	9	not an injunction barrier	culvert determined to not be a barrier	7/27/2016
933530	SR 167	23.93	unnamed	unnamed Springbrook Cr trib	9	added to injunction barrier list	newly identified barrier	12/28/2017
996500	SR 169	19.84	unnamed	Cedar R	8	added to injunction barrier list	newly identified as fishbearing, including Salmon/Steelhead. Limited Gain	1/7/2019
997646	SR 181	7.30	unnamed	Springbrook Cr	9	not an injunction barrier	culvert determined to not be a barrier	12/1/2015
102 L062	SR 202	0.14	Little Bear Cr	Sammamish R	8	not an injunction barrier	barrier corrected	4/26/2019
101S-10	SR 202	23.45	Mud Cr	Snoqualmie R	7	added to injunction barrier list	newly identified barrier	1/7/2016
991721	SR 203	4.91	unnamed	Langlois Cr	7	added to injunction barrier list	newly identified barrier	12/3/2014
991717	SR 203	4.98	Langlois Cr	Snoqualmie R	7	not an injunction barrier	barrier corrected	4/22/2019
995181	SR 203	14.10	Thayer Cr	Snoqualmie R	07	not an injunction barrier	barrier corrected	9/11/2017
991718	SR 203	14.55	Coe Clemmons Cr	Snoqualmie R	7	not an injunction barrier	barrier corrected	12/29/2015
932163	SR 303; ROW	4.33	unnamed	Steele Cr	15	not an injunction barrier	not WSDOT ownership	3/15/2016
933644	SR 305	1.90	unnamed	Murden Cove	15	added to injunction barrier list	newly identified barrier	6/1/2016
933663	SR 305	3.37	unnamed	Murden Cove	15	added to injunction barrier list	newly identified barrier	6/1/2016
933695	SR 305	5.23	unnamed	Port Madison	15	added to injunction barrier list	newly identified barrier	4/11/2016
933686	SR 305	5.37	unnamed	Manzanita Bay	15	added to injunction barrier list	newly identified barrier	4/11/2016
994328	SR 305	10.55	unnamed	Liberty Bay	15	added to injunction barrier list	newly identified barrier	4/11/2016
933284	SR 305	13.12	unnamed	Dogfish Cr	15	added to injunction barrier list	newly identified barrier	12/28/2015
990123	SR 307	0.49	Dogfish Cr	Liberty Bay	15.0285	not an injunction barrier	barrier corrected	12/20/2016
992002	SR 307	4.62	Gamble Cr	Port Gamble	15.0356	not an injunction barrier	barrier corrected	12/20/2016
996618	SR 410	17.26	Fennel Cr	Puyallup R	10	not an injunction barrier	species use verified, salmon and/or steelhead are not present	9/11/2017
991204	SR 410	22.64	unnamed	Boise Cr	10	added to injunction barrier list	newly identified barrier	6/5/2017
991206	SR 410	22.94	unnamed	Boise Cr	10	added to injunction barrier list	newly identified barrier	6/5/2017
991205	SR 410	23.83	unnamed	Boise Cr	10	not an injunction barrier	not a barrier	3/2/2018

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991049	SR 507	36.35	Lacamas Cr	Muck Cr	11.0022	not an injunction barrier	barrier corrected	12/20/2016
991755	SR 508	3.50	unnamed	SF Newaukum R	23	not an injunction barrier	culvert determined to not be a barrier	11/22/2016
994967	SR 508	5.75	unnamed	SF Newaukum R	23	not an injunction barrier	culvert determined to not be a barrier	3/30/2017
105 R121419a	SR 509	2.98	Wapato Cr	Blair Waterway	10	added to injunction barrier list	newly identified barrier	1/14/2019
933183	SR 509	5.24	unnamed	Commencement Bay	10	added to injunction barrier list	Significant Reach verified by TD; need RSFS for complete picture.	11/19/2018
933185	SR 509	5.81	unnamed	Commencement Bay	10	added to injunction barrier list	newly identified barrier	9/9/2015
990412	SR 512	4.17	Swan Cr	Puyallup R	10	not an injunction barrier	culvert determined to not be a barrier	6/18/2015
997670	SR 516	10.58	unnamed	Big Soos Cr	9	not an injunction barrier	stream determined to be non-fish bearing	5/11/2018
990210	SR 516	12.33	Jenkins Cr	Big Soos Cr	9	not an injunction barrier	culvert determined to not be a barrier	10/16/2014
994449	SR 520; EB off-ramp	6.03	Yarrow Cr	Lk Washington	8	not an injunction barrier	barrier corrected	3/15/2016
994236	SR 520	6.19	Yarrow Cr	Lk Washington	8	added to injunction barrier list	newly identified barrier	1/6/2014
994236	SR 520	6.19	Yarrow Cr	Lk Washington	8	not an injunction barrier	barrier corrected in 2014	10/30/2014
994237	SR 520; LX	6.26	Yarrow Cr	Lk Washington	8	not an injunction barrier	barrier corrected	10/22/2014
994238	SR 520; WB off-ramp	6.27	Yarrow Cr	Lk Washington	8	not an injunction barrier	barrier corrected	10/22/2014
994704	SR 520; Maint Yard	6.40	unnamed	Yarrow Cr	8	not an injunction barrier	barrier corrected	3/15/2016
994705	SR 520	6.44	unnamed	Yarrow Cr	8	not an injunction barrier	barrier corrected	12/31/2013
08.0052 0.10	SR 522	5.76	Lyon Cr	Lake Washington	8	not an injunction barrier	barrier corrected	12/29/2015
996928	SR 522	9.60	Horse Cr	Sammamish R	8	not an injunction barrier	barrier corrected	4/26/2019
996910	SR 522	11.59	unnamed	Sammamish R	8	not an injunction barrier	stream determined to be non-fish bearing	4/26/2019
994440	SR 522	16.54	Daniels Cr	Cottage Lk Cr	8	not an injunction barrier	culvert determined to not be a barrier	11/19/2013
994440	SR 522	16.57	Daniels Cr	Cottage Lk Cr	8	added to injunction barrier list	newly identified barrier	1/14/2019
934276	SR 522	18.77	unnamed	unnamed Evans Cr trib	7	added to injunction barrier list	Newly identified barrier.	12/5/2018
994125	SR 522	21.97	unnamed	Skykomish R	7	not an injunction barrier	barrier corrected	10/22/2014
994128	SR 522	21.97	unnamed	Skykomish R	7	not an injunction barrier	barrier corrected	10/22/2014
996915	SR 523	1.24	unnamed	Thornton Cr	8	not an injunction barrier	species use verified, salmon and/or steelhead are not present	12/16/2013
993122	SR 524	7.02	Martha Cr	Swamp Cr	8	not an injunction barrier	not WSDOT ownership	12/16/2015
993121	SR 524; ROW	7.07	Martha Cr	Swamp Cr	8	not an injunction barrier	not WSDOT ownership	12/16/2015
102 L020	SR 524	12.46	Great Dane Cr	Little Bear Cr	8	not an injunction barrier	barrier corrected	4/26/2019
102 S088	SR 525	0.28	Maple Cr	Swamp Cr	8	added to injunction barrier list	newly identified barrier	7/8/2014
995126	SR 526	0.80	Japanese Gulch Cr	Possession Sound	7	added to injunction barrier list	newly identified barrier	5/2/2019
995404	SR 530	36.83	unnamed	NF Stillaquamish R	5	not an injunction barrier	barrier corrected	10/22/2014
991169	SR 530	36.90	unnamed	NF Stillaquamish R	5	not an injunction barrier	barrier corrected	10/22/2014
991170	SR 530	37.58	unnamed	NF Stillaquamish R	5	not an injunction barrier	barrier corrected	10/22/2014
990885	SR 530	66.53	unnamed	Skagit R	4	added to injunction barrier list	newly identified barrier	9/18/2017
991057	SR 531	8.37	unnamed	MF Quilceda Cr	7	added to injunction barrier list	newly identified barrier- Limited Gain	1/28/2019
991058	SR 531	8.65	Edgecomb Cr	MF Quilcea Cr	7	added to injunction barrier list	newly identified barrier	10/16/2014
991058	SR 531	8.65	Edgecomb Cr	MF Quilceda Cr	07.0060	not an injunction barrier	barrier corrected	10/25/2017
991059	SR 531	8.71	Edgecomb Cr	MF Quilceda Cr	07.0060	not an injunction barrier	barrier corrected	10/25/2017
05.0018 2.00	SR 532	6.14	Church Cr	Stillaguamish R	05.0018	not an injunction barrier	barrier corrected	10/13/2017
990624	SR 532	9.75	Secret Cr	Pilchuck Cr	05.0065	not an injunction barrier	barrier corrected	12/20/2016
PA2	SR 536	2.07	unnamed	unnamed Higgins Sl trib	3	added to injunction barrier list	newly identified barrier	1/25/2016

Appendix III. Updates to the disposition of WSDOT Injunction Barrier List since September 24, 2013 (updates as of June 3, 2019)

One hundred forty-eight culverts are no longer injunction barriers requiring repair. One hundred thirty-five newly identified barrier culverts added to the injunction barrier list.

List sorted by Road and Milepost location

Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
991973	SR 539 SB	0.30	WF Spring Cr	Spring Cr	1	added to injunction barrier list	newly identified as salmon/steelhead	4/30/2018
934372	SR 539 SB	6.00	unnamed	Steamboat Sl	7	added to injunction barrier list	newly identified barrier	12/18/2017
990014	SR 542	3.50	Squalicum Cr	Bellingham Bay	1	added to injunction barrier list	newly identified barrier	9/25/2017
01.0228 4.80	SR 542	6.55	Anderson Cr	Nooksack R	1	not an injunction barrier	barrier corrected	12/29/2015
990434	SR 542	15.32	unnamed	Jim Cr	1	not an injunction barrier	not a barrier	6/28/2017
991112	SR 542	19.57	unnamed	NF Nooksack R	1	added to injunction barrier list	newly identified barrier	7/11/2017
991704	SR 542	20.14	unnamed	NF Nooksack R	1	added to injunction barrier list	newly identified barrier.	9/25/2017
991621	SR 542	24.90	High Cr	Kendall Cr	01.0407	not an injunction barrier	barrier corrected	12/20/2016
990187	SR 542	32.00	Hedrick Cr	NF Nooksack R	1	not an injunction barrier	barrier corrected	12/26/2018
990603	SR 542	36.61	Lookout Cr			not an injunction barrier	species use verified, salmon and/or steelhead are not present	6/15/2014
996161	SR 546	0.47	Pepin Cr	Fishtrap Cr	1	added to injunction barrier list	newly identified barrier	8/5/2014
990223	SR 546	4.21	Kamm Ditch	Nooksack R	1	added to injunction barrier list	newly identified barrier	8/24/2017
996155	SR 548	11.19	unnamed	Drayton Harbor	01.0044	not an injunction barrier	barrier corrected	12/20/2016
991842	SR 900	15.86	Green Cr	May Cr	08.0288	not an injunction barrier	barrier corrected	10/13/2017
995046	US 2	3.59	unnamed	unnamed	7	not an injunction barrier	stream determined to be non-fish bearing	9/20/2016
101NORT-01	US 2	15.74	unnamed	Skykomish R	7	added to injunction barrier list	newly identified barrier.	10/9/2017
101NORT-04	US 2	16.22	unnamed	Skykomish R	7	added to injunction barrier list	newly identified barrier	5/2/2016
101NORT-04	US 2	16.22	unnamed	Skykomish R	7	not an injunction barrier	not a barrier	10/16/2017
101NORT-36	US 2	19.30	unnamed	Skykomish R	7	not an injunction barrier	culvert determined to not be a barrier	9/14/2017
992066	US 2	24.80	unnamed	Wallace R	7	added to injunction barrier list	newly identified barrier	5/4/2016
992066	US 2	24.80	unnamed	Wallace R	7	not an injunction barrier	culvert determined to not be a barrier	9/7/2016
995058	US 2	44.26	unnamed	SF Skykomish R	7	not an injunction barrier	species use verified, salmon and/or steelhead are not present	6/27/2018
995059	US 2	44.30	unnamed	SF Skykomish R	7	not an injunction barrier	species use verified, salmon and/or steelhead are not present	6/27/2018
995061	US 2	48.35	unnamed	SF Skykomish R	07	not an injunction barrier	culvert determined to not be a barrier	2/3/2017
934093	US 2	48.82	unnamed	SF Skykomish R	7	added to injunction barrier list	newly identified barrier	5/8/2017
990485	US 12	0.61	Wilson Cr	Chehalis R	22	added to injunction barrier list	newly identified barrier	1/31/2018
991910	US 12	6.55	unnamed	Higgins Sl	22	added to injunction barrier list	newly identified barrier	12/16/2015
991909	US 12	6.56	unnamed	unnamed Higgins Sl trib	22	not an injunction barrier	species use verified, salmon or steelhead are not present	12/5/2018
994791	US 12	9.04	unnamed	Wynoochee R	22	not an injunction barrier	barrier corrected	10/19/2018
22.0349 0.70	US 12	12.36	Camp Cr	Metcalf Sl	22	added to injunction barrier list	newly identified barrier	9/18/2017
933616	US 12	17.56	unnamed	Wenzel Sl	22	added to injunction barrier list	newly identified barrier	4/13/2017
990563	US 12	36.33	Roundtree Cr	Harris Cr	23	added to injunction barrier list	newly identified barrier	10/15/2018
993673	US 101	84.15	unnamed	Chehalis R	22	not an injunction barrier	not a culvert feature	2/3/2014
993680	US 101	90.96	unnamed	Hoquiam R	22	added to injunction barrier list	newly identified barrier	12/31/2017
993688	US 101	92.33	unnamed	WF Hoquiam R	22	added to injunction barrier list	newly identified barrier	7/25/2018
990033	US 101	102.97	unnamed	Big Cr	22	added to injunction barrier list	newly identified barrier	3/1/2018
993714	US 101	107.42	Mopang Cr	Big Cr	22	not an injunction barrier	not a barrier	3/2/2018
990548	US 101	142.48	Harlow Cr	Queets R	21.0134	added to injunction barrier list	newly identified barrier	1/9/2014
990457	US 101	142.68	Harlow Cr	Queets R	21	added to injunction barrier list	newly identified barrier	1/9/2014

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One hundred forty-eight culverts are no longer injunction barriers requiring repair. One hundred thirty-five newly identified barrier culverts added to the injunction barrier list.

List sorted by Road and Milepost location

Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
997355	US 101	155.80	unnamed	Pacific Ocean	21	not an injunction barrier	species use verified, salmon and/or steelhead are not present	8/19/2014
934255	US 101	167.52	unnamed	Fletcher Cr	20	added to injunction barrier list	newly identified barrier	7/17/2018
996228	US 101	169.24	unnamed	Braden Cr	20	added to injunction barrier list	newly identified barrier	3/2/2018
990552	US 101	169.69	unnamed	unnamed Braden Cr trib	20	added to injunction barrier list	newly identified barrier	1/14/2019
997051	US 101	169.89	unnamed	unnamed tributary to Braden Creek tributary	20	added to injunction barrier list	newly identified as salmon/steelhead	3/7/2018
990553	US 101	170.12	unnamed	Hoh R	20	added to injunction barrier list	newly identified barrier	3/2/2018
997053	US 101	170.87	unnamed	unnamed to Hoh R trib	20	added to injunction barrier list	newly identified barrier	9/12/2017
933682	US 101; ROW	175.77	unnamed	Hoh R	20	added to injunction barrier list	newly identified barrier	3/22/2016
997072	US 101	177.97	unnamed	unnamed to Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
991595	US 101	178.09	unnamed	unnamed to Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
991589	US 101	178.30	unnamed	Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
991590	US 101	178.63	unnamed	Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
991591	US 101	179.13	unnamed	Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
991592	US 101	179.57	Hell Roaring Cr	Hoh R	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
997078	US 101	179.73	unnamed	Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
991593	US 101	180.20	unnamed	EF Hell Roaring Cr	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/21/2014
997082	US 101	183.44	unnamed	Dowans Cr	20	not an injunction barrier	stream determined to be non-fish bearing	7/21/2014
990156	US 101	186.41	unnamed	Bogachiel R	20	not an injunction barrier	culvert determined to not be a barrier	3/27/2017
991515	US 101	187.79	unnamed	Bogachiel R	20	not an injunction barrier	species use verified, salmon and/or steelhead are not present	1/16/2014
933421	US 101	189.05	unnamed	Grader Cr	20	added to injunction barrier list	newly identified barrier	1/26/2016
20.0312 0.60	US 101	197.10	Swanson Cr	Soleduck R	20.0312	not an injunction barrier	barrier corrected	12/20/2016
991565	US 101	221.00	unnamed	Lk Crescent	19	not an injunction barrier	species use verified, salmon and/or steelhead are not present	5/8/2015
996391	US 101	222.11	Eagle Cr	Lk Crescent	19	not an injunction barrier	species use verified, salmon and/or steelhead are not present	5/8/2015
996398	US 101	226.24	Smith Cr	Lk Crescent	19	not an injunction barrier	species use verified, salmon and/or steelhead are not present	5/7/2015
995823	US 101	239.31	unnamed	Indian Cr	18	added to injunction barrier list	newly identified barrier	7/10/2017
932888	US 101; off-ramp	246.18	unnamed	Tumwater Cr	18	added to injunction barrier list	newly identified barrier	4/13/2017
934250	US 101 ROW	253.84	unnamed	Bagley Creek	18	added to injunction barrier list	newly identified barrier	1/4/2018
990555	US 101	259.79	Owl Cr	Matriotti Cr	18	not an injunction barrier	barrier corrected	10/22/2014
18.0021 5.40	US 101	260.93	Matriotti Cr	Dungeness R	18.0021	not an injunction barrier	barrier corrected	10/13/2017
933369	US 101	263.43	Sequim Prairie Tri ditch	Gierin Cr	18	added to injunction barrier list	newly identified barrier	12/28/2015
995551	US 101	263.68	Sequim Prairie Tri irrigation ditch	Gierin Cr	18	added to injunction barrier list	newly identified barrier	6/23/2015
994464	US 101	269.45	unnamed	Sequim Bay	17	added to injunction barrier list	newly identified barrier	5/8/2017
995496	US 101	284.87	unnamed	Snow Cr	17	added to injunction barrier list	newly identified barrier	9/12/2017

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One hundred forty-eight culverts are no longer injunction barriers requiring repair. One hundred thirty-five newly identified barrier culverts added to the injunction barrier list.

List sorted by Road and Milepost location

Site ID	Road	Milepost	Stream	Tributary to	WRIA	Disposition	Explanation	Modified Date
995760	US 101; NB onramp	284.87	unnamed	Snow Cr	17	added to injunction barrier list	newly identified barrier	9/12/2017
991673	US 101	285.70	Andrews Cr	Snow Cr	17	added to injunction barrier list	newly identified barrier	3/2/2018
930373	US 101	291.73	unnamed	Leland Cr	17	added to injunction barrier list	newly identified barrier	3/2/2018
999584	US 101	308.74	unnamed	Hood Canal	16	not an injunction barrier	species use verified, salmon and/or steelhead are not present	11/4/2013
995935	US 101	310.27	unnamed	Hood Canal	16	added to injunction barrier list	newly identified barrier	2/3/2017
991615	US 101	317.45	unnamed	Hood Canal	16	not an injunction barrier	species use verified, salmon and/or steelhead are not present	10/18/2014
933494	US 101	334.47	unnamed	Hood Canal	16	added to injunction barrier list	newly identified barrier	3/20/2017
996367	US 101	334.74	unnamed	Hood Canal	16	not an injunction barrier	culvert determined to not be a barrier	12/1/2015
993712	US 101	103.27	unnamed	Big Cr	22	added to injunction barrier list	newly identified barrier	1/14/2019
990962	US 121	4.04	Blooms Ditch	Black R	23.0684	not an injunction barrier	barrier corrected	12/20/2016
343040	US 121	4.10	unnamed	Blooms Ditch	23	not an injunction barrier	barrier corrected	12/20/2016

Appendix IV

Appendix IV. Dedicated Funding Project Evaluations - Spawner Surveys in November/December 2018

List sorted by WSDOT Region, Site ID, and Survey Date.

WSDOT Region	Site ID	Road	Milepost	Stream	Trib to	River Mile	Project Year	Survey Date	Species	Survey Location	Survey Timing	Survey Length (miles)	Live Fish Count	Dead Fish Count	Total Fish Count	Redd Count
NW	990187	SR 542	32	Hedrick Cr	Nooksack R	0.3	2018	19-Nov-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
NW	990187	SR 542	32	Hedrick Cr	Nooksack R	0.3	2018	19-Nov-18	Coho	Downstream	Post-Project	0.3	0	0	0	0
NW	990187	SR 542	32	Hedrick Cr	Nooksack R	0.3	2018	19-Dec-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
NW	990187	SR 542	32	Hedrick Cr	Nooksack R	0.3	2018	19-Dec-18	Coho	Downstream	Post-Project	0.3	0	0	0	0
NW	990233	SR 92	2.73	Little Pilchuck Cr	Pilchuck R	4.1	2018	28-Nov-18	Coho	Upstream	Post-Project	0.3	19	1	20	2+
NW	991122	SR 9	48	Gribble Cr	WF Nookachamps Cr	0.26	2018	20-Nov-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
NW	991122	SR 9	48	Gribble Cr	WF Nookachamps Cr	0.26	2018	20-Nov-18	Coho	Downstream	Post-Project	0.26	0	0	0	0
NW	991122	SR 9	48	Gribble Cr	WF Nookachamps Cr	0.26	2018	18-Dec-18	Cutthroat	Upstream	Post-Project	0.3	0	1	1	9
NW	991717	SR 203	4.98	Langlois Cr	Snoqualmie Cr	0.64	2018	27-Nov-18	Coho	Upstream	Post-Project	0.3	24	0	24	0
NW	991717	SR 204	4.98	Langlois Cr	Snoqualmie Cr	0.64	2018	28-Nov-18	Coho	Downstream	Post-Project	0.3	11	0	11	0
NW	991842	SR 900	15.86	Green Cr	May Cr	0.27	2017	28-Nov-18		Upstream	Post-Project	0.3	7	0	7	1
NW	991842	SR 900	15.86	Green Cr	May Cr	0.27	2017	28-Nov-18		Downstream	Post-Project	0.27	28	18	46	19
NW	102 L020	SR 524	12.44	Great Dane Cr	Little Bear Cr	0.28	2018	28-Nov-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
NW	102 L020	SR 524	12.44	Great Dane Cr	Little Bear Cr	0.28	2018	28-Nov-18	Coho	Downstream	Post-Project	0.3	3	2	15	13
NW	102 L062	SR 202	0.1	Little Bear Cr	Sammamish R	0.23	2018	06-Nov-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
NW	102 L062	SR 202	0.1	Little Bear Cr	Sammamish R	0.23	2018	06-Nov-18	Coho	Downstream	Post-Project	0.23	0	0	0	0
NW	102 L062	SR 202	0.1	Little Bear Cr	Sammamish R	0.23	2018	05-Dec-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
NW	102 L062	SR 202	0.1	Little Bear Cr	Sammamish R	0.23	2018	05-Dec-18	Coho	Downstream	Post-Project	0.23	0	0	0	0
OL	990133	SR 8	6.3	EF Wildcat Cr	Wildcat Cr	0.1	2018	14-Nov-18	Coho	Upstream	Post-Project	0.3	11	1	12	3
OL	990133	SR 8	6.3	EF Wildcat Cr	Wildcat Cr	0.1	2018	14-Nov-18	Coho	Downstream	Post-Project	0.3	18	2	20	13
OL	991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	0.01	2018	14-Nov-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
OL	991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	0.01	2018	14-Nov-18	Coho	Downstream	Post-Project	0.01	0	0	0	0
OL	991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	0.01	2018	06-Dec-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
OL	991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	0.01	2018	06-Dec-18	Coho	Downstream	Post-Project	0.01	0	0	0	0
OL	991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	0.01	2018	19-Dec-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
OL	991739	SR 112	7.35	Olsen Cr	Strait of Juan de Fuca	0.01	2018	19-Dec-18	Coho	Downstream	Post-Project	0.01	0	0	0	0
OL	994791	US 12	9.04	Trib to Wynoochee R	Wynoochee R	0.35	2018	19-Nov-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
OL	994791	US 12	9.04	Trib to Wynoochee R	Wynoochee R	0.35	2018	19-Nov-18	Coho	Downstream	Post-Project	0.3	0	0	0	0
OL	994791	US 12	9.04	Trib to Wynoochee R	Wynoochee R	0.35	2018	03-Dec-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
OL	994791	US 12	9.04	Trib to Wynoochee R	Wynoochee R	0.35	2018	03-Dec-18	Coho	Downstream	Post-Project	0.3	0	0	0	0
OL	994791	US 12	9.04	Trib to Wynoochee R	Wynoochee R	0.35	2018	13-Dec-18	Coho	Upstream	Post-Project	0.3	0	0	0	0
OL	994791	US 12	9.04	Trib to Wynoochee R	Wynoochee R	0.35	2018	13-Dec-18	Coho	Downstream	Post-Project	0.3	0	0	0	0
OL	18.0021	US 101	260.93	Matriotti Cr	Dungeness R	5.4	2017	15-Nov-18		Downstream	Post-Project	0.3	0	0	0	0
OL	18.0021	US 101	260.93	Matriotti Cr	Dungeness R	5.4	2017	06-Dec-18		Downstream	Post-Project	0.3	0	0	0	0
OL	18.0021	US 101	260.93	Matriotti Cr	Dungeness R	5.4	2017	19-Dec-18		Downstream	Post-Project	0.3	0	0	0	0
OL	22.0507	SR 8	5	MF Wildcat Cr	EF Wildcat Cr	0.1	2018	14-Nov-18	Coho	Upstream	Post-Project	0.3	18	4	22	12
OL	22.0507	SR 8	5	MF Wildcat Cr	EF Wildcat Cr	0.1	2018	14-Nov-18	Coho	Downstream	Post-Project	0.3	197	2	199	2
SW	991634	SR 504	17	Wooster Cr	NF Toutle R	0.08	2018	19-Nov-18		Upstream	Post-Project	0.3	0	0	0	0
SW	991634	SR 504	17	Wooster Cr	NF Toutle R	0.08	2018	19-Nov-18		Downstream	Post-Project	0.08	0	0	0	0
SW	991634	SR 504	17	Wooster Cr	NF Toutle R	0.08	2018	03-Dec-18		Upstream	Post-Project	0.3	0	0	0	0
SW	991634	SR 504	17	Wooster Cr	NF Toutle R	0.08	2018	03-Dec-18		Downstream	Post-Project	0.08	0	0	0	0
SW	991634	SR 504	17	Wooster Cr	NF Toutle R	0.08	2018	18-Dec-18		Upstream	Post-Project	0.3	0	0	0	0
SW	991634	SR 504	17	Wooster Cr	NF Toutle R	0.08	2018	18-Dec-18		Downstream	Post-Project	0.08	0	0	0	0

Appendix V

Appendix VA. Northwest Region Spring 2019 WSDOT Fishway Inspections

List sorted by Highway and Milepost location.

Region	Site ID	Road	Milepost	Stream Name	Inspector	Inspection Date	Fishway Condition	Maintenance Required	
Northwest	08.0049	3.00	I-5; NB off-ramp	177.67	McAleer Cr	Collins	6/25/2019	OK	None
Northwest	993090		I-5	182.73	Swamp Cr	Roler	6/21/2019	OK	None at this time
Northwest	08.0070	10.60	I-5	187.05	North Cr	Collins	6/25/2019	MNFP	Remove substantial debris accumulation from culvert inlet.
Northwest	990308		I-5	187.12	North Cr	Collins	6/25/2019	OK	
Northwest	990308		I-5	187.12	North Cr	Collins	6/25/2019	OK	None at this time.
Northwest	990622		I-5	211.5	Secret Cr	Roler	6/21/2019	OK	None
Northwest	05.0021	4.10	I-5	216.73	WF Church Cr	Roler	6/21/2019	OK	None
Northwest	03.0016	0.40	I-5	238.4	Bow Hill Cr	Roler	6/20/2019	OK	None
Northwest	08.0183	1.00	I-90	17	EF Issaquah Cr	Collins	6/12/2019	OK	None
Northwest	08.0183	1.30	I-90	18.37	EF Issaquah Cr	Collins	6/12/2019	OK	None at this time
Northwest	08.0183	1.90	I-90	19.02	EF Issaquah Cr	Collins	6/12/2019	OK	None
Northwest	08.0183	3.00	I-90	20.22	EF Issaquah Cr	Collins	6/12/2019	OK	None at this time
Northwest	996965		I-90	20.42	unnamed	Collins	6/12/2019	MNR	None at this time
Northwest	08.0191	0.30	I-90; ROW	21.23	unnamed	Collins	6/12/2019	OK	None
Northwest	08.0183	5.00	I-90	22.37	EF Issaquah Cr	Collins	6/12/2019	MNR	None
Northwest	08.0268	0.80	I-405	10.12	Coal Cr	Collins	5/14/2019	OK	None
Northwest	990376		I-405	19.12	Forbes Cr	Collins	5/14/2019	Ok	The uppermost DS control is still in jeopardy of end cutting.
Northwest	08.0059	7.00	I-405	29.75	Swamp Cr	Collins	5/20/2019	OK	Remove debris from DS culvert apron and DS controls.
Northwest	01.0626	0.35	SR 11	18.6	Chuckanut Cr	Roler	6/20/2019	OK	None
Northwest	08.0320	1.30	SR 18	16.94	Downs Cr	Collins	6/11/2019	OK	None at this time.
Northwest	03.0354A	0.04	SR 20	77.7	Little Careys Cr	Collins	5/2/2019	OK	None
Northwest	990065		SR 20	77.82	unnamed	Collins	5/2/2019	OK	None at this time
Northwest	07.0148	1.30	SR 92	1.93	Catherine Cr	Collins	7/10/2019	OK	None at this time
Northwest	990272		SR 104	29.65	McAleer Cr	Collins	6/25/2019	OK	None at this time
Northwest	105 R042117a		SR 164	8.24	Pussyfoot Cr	Collins	6/11/2019	MNR	None at this time
Northwest	08.0302	0.00	SR 169	23.62	Maplewood Cr	Collins	6/11/2019	OK	None at this time
Northwest	08.0110	0.10	SR 202	11.05	Rutherford Cr	Collins	7/2/2019	OK	None.
Northwest	990142		SR 202	11.96	Evans Cr	Collins	7/2/2019	MNR	None at this time
Northwest	07.0383A	0.50	SR 202	13.8	Dry Cr	Collins	7/2/2019	OK	None at this time
Northwest	991013		SR 410	50.32	Minnehaha Cr	Collins	6/11/2019	OK	None
Northwest	990262		SR 522	1.87	Maple Leaf Cr	Collins	7/2/2019	OK	None at this time
Northwest	08.0080	0.90	SR 522	12.66	Little Bear Cr	Collins	7/2/2019	OK	None at this time
Northwest	08.0080	1.10	SR 522	12.92	Little Bear Cr	Collins	7/2/2019	OK	None
Northwest	08.0070A	0.01	SR 527	4	Sulphur Springs Cr	Collins	5/20/2019	OK	None
Northwest	08.0075	0.20	SR 527; ROW	4.06	Silver Cr No 1	Collins	5/20/2019	OK	None
Northwest	08.0075	0.70	SR 527	4.46	Silver Cr No2	Collins	5/20/2019	OK	None
Northwest	08.0075	0.75	SR 527	4.48	Silver Cr No 3	Collins	5/20/2019	OK	None at this time.
Northwest	08.0070B	0.30	SR 527	6.32	Nickel Cr	Collins	5/20/2019	OK	None
Northwest	991160		SR 530	25.94	Schoolyard Cr	Collins	5/2/2019	MNR	None
Northwest	991155		SR 530	54.6	Lyle Cr	Collins	5/2/2019	OK	None
Northwest	990188		SR 530	64.09	Hilt Cr	Collins	5/2/2019	OK	None at this time.
Northwest	991741		SR 534	1.2	unnamed	Collins	5/2/2019	OK	None at this time.
Northwest	990014		SR 542	3.45	Squalicum Cr	Roler	6/20/2019	MNR	None
Northwest	990433		SR 900	19.5	Tibbetts Cr	Collins	6/12/2019	MNR	None at this time.
Northwest	07.0096	0.30	US 2	3.6	Mosier Cr	Collins	7/10/2019	OK	None

Fishway Condition:

MNFP requires maintenance for fish passage

MNR requires replacement

Appendix VB. Olympic Region Spring 2019 WSDOT Fishway Inspections

List sorted by Highway and Milepost location.

Region	Site ID	Road	Milepost	Stream Name	Inspector	Inspection Date	Fishway Condition	Maintenance Required
Olympic	990323	SR 3	33.7	Parish Cr	Collins	5/1/2019	OK	None
Olympic	15.0229	SR 3	40.96	Chico Cr	Collins	5/1/2019	MNR	None
Olympic	15.0250	SR 3	46.24	WF Clear Cr	Collins	5/1/2019	OK	None at this time.
Olympic	996803	SR 3	47.72	unnamed	Collins	5/1/2019	MNR	None
Olympic	990224	SR 3	57.1	Kinman Cr	Collins	5/1/2019	OK	None at this time
Olympic	15.0060	SR 16	17.8	Purdy Cr	Collins	5/1/2019	MNR	None
Olympic	15.0056	SR 16	22.7	Burley Cr	Collins	5/1/2019	MNR	None
Olympic	990278	SR 108	8.89	McDonald Cr	Collins	5/20/2019	MNR	Vector out the accumulated sediment from the cells of the turning pool and US to the FW exit.
Olympic	991636	SR 706	8.02	unnamed	Collins	5/2/2019	OK	None at this time.
Olympic	991227	SR 706	9.81	unnamed	Collins	5/2/2019	MNR	None at this time.
Olympic	22.0346	US 12	11.73	unnamed	Collins	6/11/2019	OK	None
Olympic	22.0350	US 12	12.1	unnamed	Collins	6/11/2019	OK	None
Olympic	22.0349	US 12	12.36	Camp Cr	Collins	6/11/2019	MNR	None at this time
Olympic	991532	US 12	13.84	Metcalf Sl	Collins	6/11/2019	MNFP	Remove the beaver dam that has been constructed on the US most DS control.
Olympic	991501	US 101	103.65	unnamed	Collins	6/11/2019	MNR	None
Olympic	991581	US 101	104.92	unnamed	Collins	6/11/2019	OK	None at this time.
Olympic	990143	US 101	105.63	Fairchild Cr	Collins	6/11/2019	OK	None at this time
Olympic	990178	US 101	146.85	Harlow Cr	Collins	6/11/2019	MNR	None at this time
Olympic	991263	US 101	162.15	Big Cedar Cr	Collins	6/11/2019	OK	None
Olympic	990400	US 101	162.6	Steamboat Cr	Collins	6/11/2019	MNR	None at this time
Olympic	161180	US 101	167.44	Fletcher Cr	Collins	6/11/2019	OK	None at this time.
Olympic	990197	US 101	171.7	Huelsdonk Cr	Collins	6/11/2019	OK	None
Olympic	990169	US 101	189.4	Grader Cr	Collins	6/11/2019	MNR	None currently
Olympic	18.0283	US 101	238.35	Indian Cr	Collins	6/12/2019	MNR	None
Olympic	990448	US 101	246.4	Tumwater Cr	Collins	6/12/2019	MNR	None
Olympic	18.0234	US 101	250	Ennis Cr	Collins	6/12/2019	MNR	Remove LWD chunk from lower WP FW and reposition it downstream.
Olympic	990240	US 101	250.5	Lees Cr	Collins	6/12/2019	MNR	Remove large log chunk from lower portion of fishway and reposition it in the downstream channel.
Olympic	990021	US 101	253.85	Bagley Cr	Collins	6/12/2019	MNR	None
Olympic	18.0173	US 101	256.1	Siebert Cr	Collins	6/12/2019	MNR	None
Olympic	933191	US 101; ROW	260.93	Mariotti Cr	Collins	6/12/2019	MNR	None
Olympic	115 MC093	US 101	346.95	Coffee Cr	Collins	5/20/2019	MNR	None at this time
Olympic	14.0021	US 101	353.6	Little Skookum Cr	Collins	5/20/2019	OK	None at this time
Olympic	14.0010	US 101	356.8	Countyline Cr	Collins	5/20/2019	MNR	None at this time
Olympic	14.0009A	US 101	357.9	Holiday Valley Cr	Collins	5/20/2019	OK	None at this time.

Fishway Condition:

MNFP requires maintenance for fish passage

MNR requires replacement

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Appendix VC. Southwest Region Spring 2019 WSDOT Fishway Inspections

List sorted by Highway and Milepost location.

Region	Site ID	Road	Milepost	Stream Name	Inspector	Inspection Date	Fishway Condition	Maintenance Required
Southwest	994286	I-5	74.05	Berwick Cr	Collins	5/22/2019	OK	None at this time
Southwest	994301	I-5	81.77	China Cr	Collins	5/22/2019	OK	None at this time
Southwest	990035	SR 4	35.6	Birnie Cr	Collins	5/23/2019	OK	None at this time.
Southwest	992288	SR 14	20.92	Lawton Cr	Collins	5/22/2019	OK	None at this time.
Southwest	992223	SR 142	13.4	Snyder Canyon Cr	Collins	5/22/2019	OK	None at this time
Southwest	990071	SR 401	8.8	Cement Cr	Collins	5/23/2019	OK	None at this time.
Southwest	990036	SR 409	3.85	Birnie Cr	Collins	5/23/2019	OK	None at this time
Southwest	27 0327 0.50	SR 503	46.84	Johnson Cr	Collins	5/22/2019	OK	None at this time.
Southwest	991440	SR 503	49.03	Kenyon Cr	Collins	5/22/2019	OK	None at this time.
Southwest	27 0300 0.00	SR 503	52.1	Robinson Cr	Collins	5/22/2019	OK	Remove debris plug in upper 1/3 of culvert
Southwest	26.0314 A 0.10	SR 504	12.7	Spirit Lake Hwy Marsh	Collins	5/22/2019	OK	None at this time.
Southwest	990363	US 101	29.8	SF Nemah R	Collins	5/23/2019	OK	None at this time.
Southwest	992311	US 101	53.56	Old Mill Pond Cr	Collins	5/23/2019	OK	None at this time.